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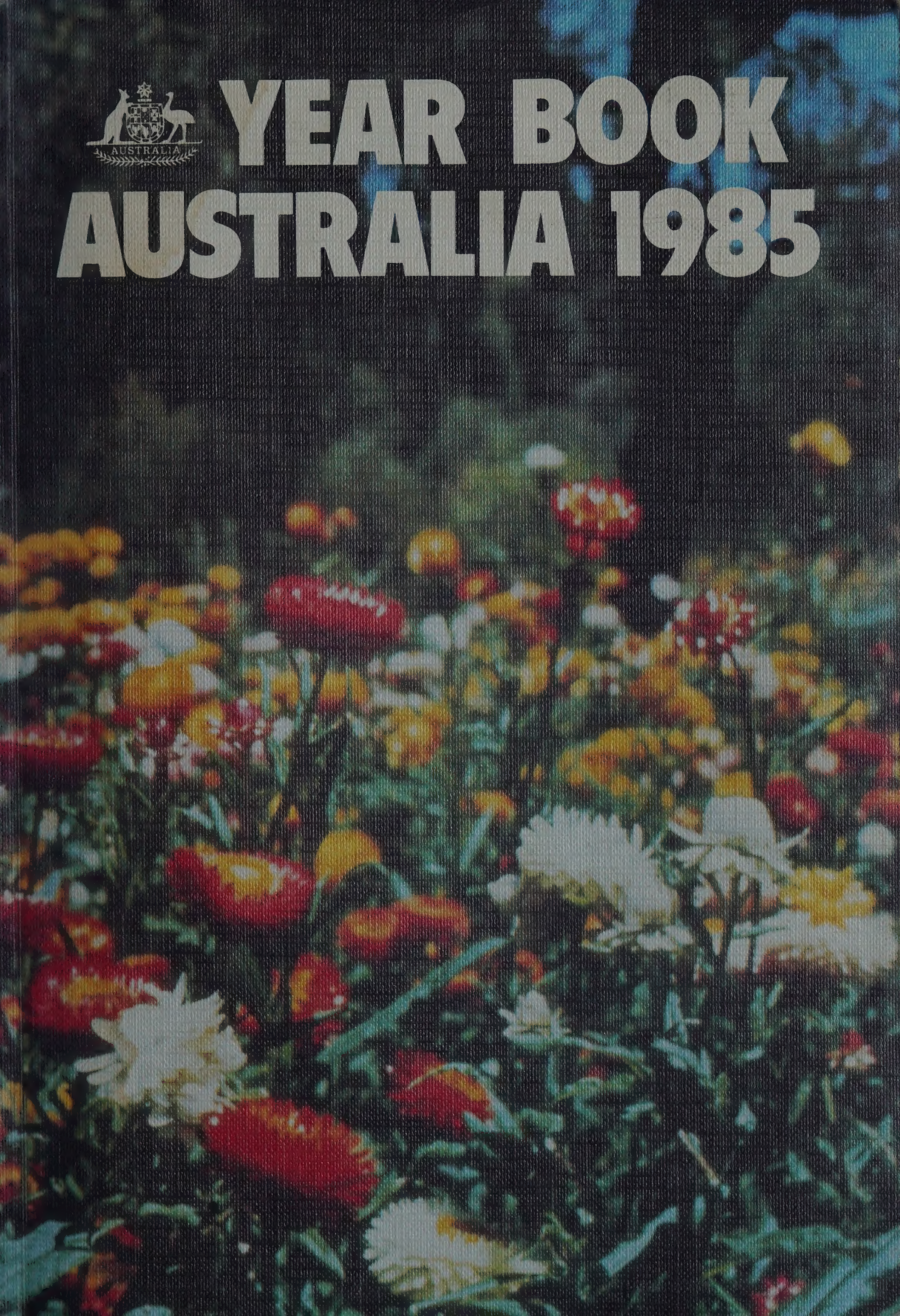

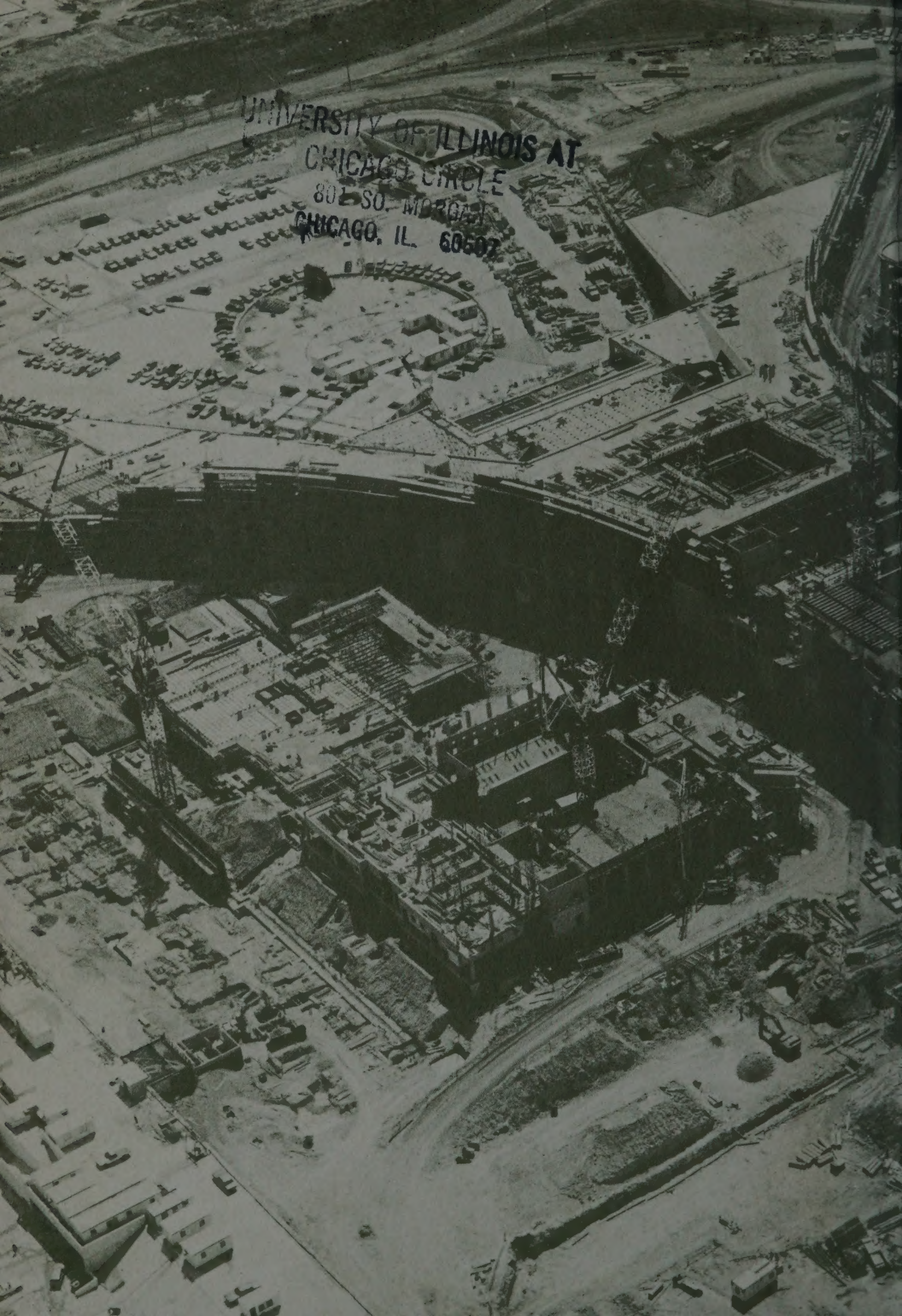

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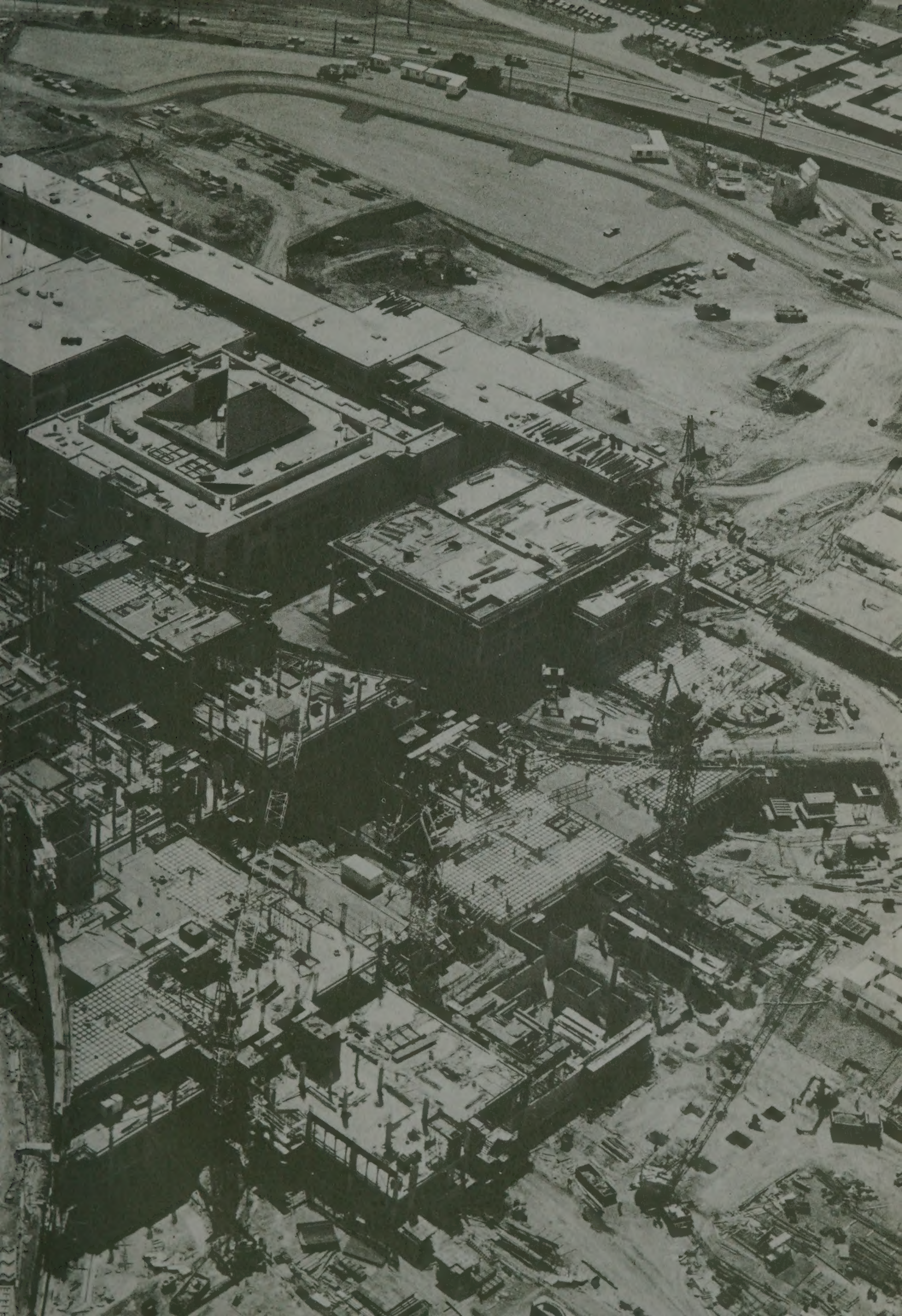

YEAR BOOK AUSTRALIA 1985

Cover:	Straw flower *(Helichrysum bracteatum)* *M. Fagg, National Botanic Gardens, Canberra*
Frontispiece:	Aerial view of Australia's new Parliament House, under construction. To the left of Commonwealth Avenue Bridge is the Captain Cook Memorial Jet set in Lake Burley Griffin. On the foreshore of the Lake is the National Library of Australia, and behind it, in white, the existing Parliament House. *Parliament House Construction Authority*
Front endpaper:	Close up of construction on the new Parliament House. The Senate and Executive suite are shown in the foreground. Roof tiles are in place on the House of Representatives. A feature of the design, the curvilinear walls, encapsulate Australia's bicameral system of Parliament. *Parliament House Construction Authority*
Back endpaper:	Artist's impression of the Foyer of the new Parliament House. The two staircases will take visitors to the extensive Public Areas on the First Floor of the building. *Parliament House Construction Authority*

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R. J. CAMERON
AUSTRALIAN STATISTICIAN

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CONTENTS

FEATURES OF THIS ISSUE xii

PREFACE xiii

ACKNOWLEDGMENTS xiv

GENERAL INFORMATION xvii

MAP OF AUSTRALIA (inside back cover)

CHAPTER 1. PRE-HISTORY TO FEDERATION 1

Early knowledge and discovery of Australia (1); The annexation of Australia (2); The exploration of Australia (3); The establishment of the Commonwealth of Australia (6); The external Territories of Australia (7); The Constitution of Australia (8).

Plates—1, *Australis Terre Pars—map (facing page 1);* 2, *Carte Reduite Des Terres Australes—map (3).*

CHAPTER 2. CLIMATE AND PHYSICAL GEOGRAPHY OF AUSTRALIA 9

General description of Australia (9); Position and area (9); Land forms (9); Climate of Australia (11); Climatic controls (11); Rainfall (11); Temperature (16); Frost (20); Humidity (20); Global radiation (21); Sunshine, cloud and fog (21); Winds (22); Floods (22); Droughts (22); Climatic discomfort (25); Climatic data for capital cities (26).

Plates—3-6, *Rainfall (12-15); 7-9, Temperatures (17-19)*; 10-13, *Wind roses (23-24).*

CHAPTER 3. GENERAL GOVERNMENT 27

Parliamentary Government (27); The Sovereign (27); The Governor-General (27); Governors of the States (28); Ministries (29); Parliaments and elections (32); Referendums (35); Outlay on parliamentary government (37); National Anthem and colours (38); Acts of the Commonwealth Parliaments (38).

CHAPTER 4. DEFENCE 39

Current defence policy (39); Higher defence organisation (39); Higher defence machinery (40); Equipment for the defence force (40); Defence industry (41); Supply support (43); Capital facilities (44); Defence manpower (44); Defence co-operation (45); Defence representation overseas (46); Defence force activities overseas (46); Royal Australian Navy (47); Australian Army (49); Royal Australian Air Force (50); Defence Science and Technology Organisation (52); Natural Disasters Organisation (53); Department of Defence Support (54); Budget allocations (54); Munitions production (55); Defence aerospace (56); Defence shipbuilding (56); Defence purchasing (57); Australian offsets program (57).

CHAPTER 5. INTERNATIONAL RELATIONS 58

Relations with –The United Nations (58); The Commonwealth (59); South East Asia (59); Asia (59); South Pacific (60); The Americas (61); Europe (61); The Middle East (62); Africa (62); Indian Ocean (62); ANZUS (62); Nuclear issues (63); Disarmament and arms control (63); Economic relations (63); North-South relations (64); Law of the Sea (65); Antarctica (65); Treaties (65); Cultural relations (65); Australian Aid Program—1984-85 (65); Bilateral projects (66); Multilateral aid (68); Consular (69); Australian representation overseas (70); Passports (71).

CHAPTER 6. DEMOGRAPHY 72

Population—the population census (72); estimates (73); Size and growth (73); Projections (76); Location (78); Age distribution (82); The Aboriginal population (82); Internal migration (82); Vital statistics (84); Births and fertility (85); Mortality (88); Life expectancy (89); Marriages (90); Divorce (92); International movements (94); Migration to Australia (96); Language (98); Refugees (101); Citizenship (101).

Plates—14, *Population of Australia: Age last birthday, by sex: 30 June 1983 (79);* 15, *Number of Divorces, 1970 to 1983 (93);* 16, *Language usage, May 1983 (100).*

CHAPTER 7. PRICES 103

Retail prices and price indexes—Consumer Price Index (103); Previous retail price indexes (107); Wholesale price indexes (108); Price index of materials used in house building (108); Price index of materials used in building other than house building (109); Price index of materials used in manufacturing industry (111); Price indexes of articles produced by manufacturing industry (112); Import price index (113); Export price index (114); Previous wholesale price indexes (114); Prices Surveillance Authority (115); Household Expenditure Surveys (115).

CHAPTER 8. MANPOWER 116

The labour force (116); Employment (122); Unemployment (128); Persons not in the labour force (132); Wage rates, earnings and income (134); Non-wage benefits (141); Hours of work and work patterns (144); Industrial disputes (146); Trade unions (150); Industrial accidents (152); Persons retired from full-time work (152); Employment and training programs—Trade (155); Skills (155); Youth (156); Employment creation (157); Trade union training authority (158).

Plates—17, *The Australian labour force framework (117);* 18, *Labour force participation rates (118);* 19, *Underutilisation, underemployment and unemployment rates (121);* 20, *Part-time workers, hours preference (124);* 21, *Tradespersons, current trade status (127);* 22, *Unemployment rates (127);* 23, *Duration of unemployment (130);* 24, *Reasons for not looking for work (134);* 25, *Average weekly earnings (138);* 26, *Income differences, males and females by educational attainment (141);* 27, *Employee benefits received (141);* 28, *Superannuation benefits by occupation (143);* 29 *and* 30, *Industrial disputes (148);* 31, 32 *and* 33, *Trade union membership (151);* 34 *and* 35, *Persons who retired from full time work (154).*

CHAPTER 9. SOCIAL SECURITY AND WELFARE 161

Commonwealth Government expenditure on social security services (161); Age and invalid pensions (161); Widows' pensions (162); Supporting parent's benefit (163); Fringe benefits (163); Unemployment and sickness benefits (164); Family allowances (165); Portability of social service payment (166); Commonwealth Government assistance through welfare organisations (166); Handicapped people (167); Homeless people (167); Children's services (167); Aboriginals (168); Migrants (168); Veterans' Affairs (169); Disability pensions (170); Service pensions (172); Medical treatment for veterans and dependants of veterans (173); General repatriation benefits and miscellaneous (174); The Services Canteens Trust Fund (176); Distribution of income (177).

Plates—36, *Income recipients at each level of income (178);* 37, *Type of income unit and nature of occupancy (178).*

CHAPTER 10. HEALTH **181**

Commonwealth health benefits, medicare (181); Commonwealth nursing home benefits (183); Other Commonwealth nursing benefits (184); Other Commonwealth benefits schemes (184); Commonwealth Government subsidies and grants to States (186); Commonwealth Government subsidies and grants to organisations (187); National health services and advisory organisations (188); Commonwealth Government health advisory organisations (189); Communicable diseases—quarantine (190); Notifiable diseases (191); Hospitals—Repatriation hospitals (193); Hansenide hospitals (193); Mental health institutions (193); Hospital statistics (193); Deaths (194); Cremations (196); Health related surveys conducted by the ABS (197).

Special Article—History of Home Nursing in Australia (202).

CHAPTER 11. LAW AND ORDER **210**

The Law in Australia (210); The Australian Law Reform Commission (211); Courts—Federal (211); State and Territory (214); Administrative bodies (215); Legal aid (218); The Police (219); Crime statistics (220); Correctional treatment of offenders (223); Criminological research—The Australian Institute of Criminology (224); The Criminology Research Council (224); Bankruptcy and copyright (225).

Plate—38, *Selected offences reported or becoming known to police (221).*

CHAPTER 12. EDUCATION **226**

State and Commonwealth responsibilities in education (226); Administrative structure of education (226); New developments in education (227); Pre-school education (228); Primary and Secondary education (228); Tertiary education (232); Programs which span the educational sectors—Aboriginal education (239); Migrant and multicultural education (240); Teacher education (240); Expenditure on education (240); Office of Youth Affairs (242).

Special Article—The International Year of Youth (244).

CHAPTER 13. AGRICULTURAL INDUSTRIES **247**

Sources of statistics and definitions of units (247); Structural statistics (248); Financial statistics (250); Value of agricultural commodities produced and index of values at constant prices (251); Apparent consumption of foodstuffs and nutrients (253); Land tenures (256); Land utilisation in Australia (256); Crops (257); Cereal grains (258); Wheat (259); Coarse grains (264); Oats (264); Barley (265); Grain sorghum (265); Maize (266); Rice (266); Oilseeds (267); Cotton (269); Sugar (269); Vegetables (271); Fruit (excluding grapes) (273); Grapes (276); Miscellaneous crops (278); Livestock (281); Cattle (281); Sheep (282); Pigs (284); Poultry (284); Meat production, slaughtering and other disposals (284); Exports of live animals (287); Consumption (288); The Australian Meat and Livestock Corporation (289); Wool (290); Dairying (295); Beekeeping (298); Eggs and egg products (299); Agricultural improvements (300); Aerial agriculture (301); Employment in agriculture (303); Regulation of Australian agricultural industries (303).

Plates—39, *Production of meat (285);* 40, *Sheep numbers and wool production (291).*

CHAPTER 14. FORESTRY AND FISHERIES **304**

Forestry (304); Plantations (305); Australian Forestry Council (305); Timber and timber products (306); Fisheries—Collection and presentation of statistics (307); Resources and their commercial exploitation (308); Administration and research (309); Boats and equipment used in fisheries (310); Production, processing and domestic marketing of fisheries products (310).

CHAPTER 15. WATER RESOURCES 314

Geographic background (314); Surface supplies (315); Groundwater supplies (315); Drainage divisions and the use of surface and groundwaters (316); Water quality (317); Major dams and reservoirs (319); Water management (321); Research and continuing assessment (322); International aspects (323); National and interstate agreements (324); States and Territories—New South Wales (326); Victoria (328); Queensland (330); South Australia (332); Western Australia (334); Tasmania (336); Northern Territory (339); Australian Capital Territory (340).

Plate—41, *Australian Drainage Divisions (316).*

CHAPTER 16. MINERAL INDUSTRY 341

Geology and mineral resources (341); Administration (341); Government assistance—Commonwealth Government (344); State Government (345); Research (347); International relations (349); Mineral industry statistics—Mining industry (350); Mineral production (351); Foreign participation in the mining industry in Australia (354); Mineral exploration (other than for petroleum and oil shale) (354); Oil shale exploration (355); Petroleum exploration (355); Mineral processing and treatment (356); Overseas trade (357); Review of recent developments in the Australian mineral industry (358).

CHAPTER 17. MANUFACTURING AND INTERNAL TRADE 362

Manufacturing (362); Standardisation (364); Industry statistics (366); Multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed (368); Single establishment manufacturing enterprises with less than four persons employed (372); Principal manufacturing commodities (373); Enterprise statistics—Integrated economic censuses and surveys (378); Foreign ownership and control (378); Internal trade—Wholesale trade (379); Retail trade (379).

CHAPTER 18. ENERGY 382

Advice and co-ordination (383); Research and Development (383); Resources—Black coal (385); Brown coal (385); Petroleum (386); Oil shale (390); Uranium (390); Thorium (392); Solar energy (392); Ocean thermal energy (392); Wind energy (392); Geothermal energy (393); Tidal energy (393); Biomass (393); Electric power (394); Hydro-power (394); Snowy Mountains Hydro-electric Scheme (394); Electricity generation and transmission (396); Electricity and gas establishments (402); National energy survey (402).

Plate—42, *The Snowy Mountains Scheme—map (395).*

CHAPTER 19. HOUSING AND CONSTRUCTION 404

Housing—Census dwellings (404); Commonwealth Government assistance (405); Commonwealth-State housing agreements (407); Advances to home purchasers (416); Construction—Building (419); Construction (other than building) (423); Construction Industry survey (424).

Plates—43, *New Houses: Australia (420);* 44, *New Other Dwellings: Australia (422).*

CHAPTER 20. TRANSPORT AND COMMUNICATION 427

Transport Organisations (427); Shipping—Control of shipping (428); Collection and presentation of statistics (432); Australian trading vessels (434); Overseas shipping (435); Coastal shipping cargo (441); Railways—Government railways (442); Operations of government railway systems (443); Non-government railways (447); Tram, bus and ferry services (448); Motor vehicles (449); Road traffic accidents (452); Roads (452); Air transport (454); Postal, telecommunication and radiocommunication services (458); Australian Postal Commission (458); Telecommunications services within Australia (462); Radiocommunication stations authorised (466); Broadcasting and television (466); Broadcasting services (467); Television services (468).

CHAPTER 21. PRIVATE FINANCE 470

Money—Currency (470); Volume of money (471); Financial legislation (471); Banks—Reserve Bank of Australia (472); Trading banks (474); Savings banks (477); Development banks (478); Registered building societies—Permanent building societies (478); Cooperative building societies (479); Credit unions (480); Short-term money market (481); Finance companies (482); Financial corporation statistics (484); Cash management trusts (485); Life insurance (485); General insurance (487); Superannuation schemes (488); Instalment credit for retail sales (490); Housing finance for owner occupation (491); New capital raisings by companies listed on Australian stock exchanges (492).

CHAPTER 22. PUBLIC FINANCE 495

Commonwealth Government Finance—Provisions of the Constitution (495); Budget (495); Commonwealth non-budget authorities (497); Outlay and receipts (498); Main components of receipts (501); State authorities—General (523); Outlay and receipts (524); Components of outlay and receipts (525); Local authorities—General (525); Area, population, dwellings and rates and penalties for ordinary services (525); Outlay and receipts (526); All public authorities—Summary of outlay and receipts (528); Public sector borrowing (529); Commonwealth Government and States: Government securities on issue (529); State and local authorities' borrowings (531).

CHAPTER 23. NATIONAL ACCOUNTS 533

Description of National Income and Expenditure Accounts (533); National income and expenditure tables (536).

Plates—45, Relationship of Main Identities (534); 46, Articulation of Australian National Accounts (535).

CHAPTER 24. FOREIGN TRANSACTIONS 542

Foreign trade—Constitutional provisions and legislation (542); Trade promotion and incentives (544); Government authorities (545); Trade relations (545); Trade agreements (547); Trade services (550); Collection and presentation of statistics (550); Foreign trade statistics (554); Classified summary of Australian overseas trade (557); Exports of major commodities (559); Direction of foreign trade (561); Foreign trade by State (570); Total import clearances, dutiable clearances, and customs duties collected (570); Excise (571); Foreign investment (572); Balance of payments (577); Foreign ownership and control of the mining industry (585).

Plates—47, Foreign trade, 1962–63 to 1983–84 (555); 48, *Value of exports and imports, proportions by country, 1979–80 to 1983–84 (556).*

CHAPTER 25. SCIENCE AND TECHNOLOGY 687

Department of Science and Technology (587); Advice and co-ordination (589); Resources and Services—Soil resources (590); Australian Government Analytical Laboratories (590); Patent, Trade Marks and Design office (591); Meteorology (591); Scientific and Technological Information Services (592); Research and Development—Expenditure and Human resources, Project SCORE (593); Research by business enterprises (594); Major Government research agencies—Commonwealth Scientific and Industrial Research Organisation (600); Antarctic Division, Department of Science and Technology (601); Australian Institute of Marine Science (601); Defence, Science and Technology Organisation (602); Engineering Division, Department of Housing and Construction (602); Telecom Australia Research Laboratories (602); Research in Universities and Colleges of Advanced Education (602); Research organisations associated with Education Institutions (603); Social Science and Humanities research (604); International activities (604); Antarctic Treaty and conservation of Antarctic marine living resources (604); Space (606).

CHAPTER 26. CULTURE, ENVIRONMENT, RECREATION AND TRAVEL 608

Cultural activities (608); Australia Council (608); Commonwealth schemes in support of the arts (610); Other arts organisations (611); Film (612); National collections (614); Heritage activities (618); Australian anniversaries (620); Environment and Conservation (621); National parks, botanic gardens and nature reserves (623); Sport and recreation (625); Travel (628); Tourism (631).

Plates—49, *Visitor arrivals, short term, by usual residence, 1978 to 1983, 50, Resident departures, short term by region of intended stay, 1978 to 1983 (631).*

Special Article—Tourism in Australia (633).

CHAPTER 27. THE TERRITORIES OF AUSTRALIA 637

The Northern Territory—General description (637); Population (639); Aboriginal affairs (639); Production (641); Transport and communication (645); Education (647); Health (649); Finance (650); The Australian Capital Territory—General description (651); Works and services (651); Production (652); Commercial practices (653); Transport and communication (653); Social (654); Tourism (656); Finance (656); Norfolk Island (657); Heard Island and McDonald Islands (659); Australian Antarctic Territory (659); Cocos (Keeling) Islands (661); Christmas Island (662); Coral Sea Islands (663).

Plate—51, *Antarctica—map (660).*

STATISTICAL SUMMARY 1901–02 TO 1983–84 664

INTERNATIONAL STATISTICS 677

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES 679

GENERAL INDEX 686

ILLUSTRATIONS

Construction of Australia's new Parliament House *front endpaper*

Aerial view of Australia's new Parliament House under construction *frontispiece*

Australian War Memorial *facing page 46*
  Aerial view
  The Man with the Donkey—sculpture
  Gallipoli Peninsular—topographical map
  Life on Anzac—display
  The Beach at Anzac—painting
  Lone Pine—diorama
  The Nursing Sister—model
  Hall of Memory

Colour photographs *facing page 462*
  Commemorative stamps
  Australians conquering Mt Everest
  Ayers Rock
  Bicentennial postage stamps
  National Film and Sound Archive poster

Artist's impression of the foyer of the new Parliament House *back endpaper*

FEATURES OF THIS ISSUE

Special Articles—

- History of Home Nursing in Australia (pages 202–209)
- The International Year of Youth (pages 244–246)
- Tourism in Australia (pages 633–636)

Pictorials

- Frontispiece—an aerial view in colour of the New Parliament House under construction in Canberra.
- Colour photographs of the Gallipoli Gallery, opened in 1984, at the Australian War Memorial (facing page 46).
- Colour photographs of selected special events in 1984 and 1985 including Australian commemorative postage stamps (facing page 462).
- Endpapers depicting further progress on Australia's new Parliament House in Canberra.

Maps

- Copies of two rare maps held by the National Library of Australia (chapter 1).
- Antarctica, showing Australia's Antarctic Territory (page 660).
- Fold out, coloured general reference map of Australia (inside back cover).

Other Selected Features

- Official results of the Commonwealth Parliament election and referendums held on 1 December 1984 (Chapter 3).
- A portrayal of Australia's labour force in graphic form (chapter 8).
- Results of an Australia wide language usage survey conducted by the Australian Bureau of Statistics in May 1983 (chapter 6, pages 98-100).
- Information on the Commonwealth Water Policy based on the 1982 study into Australia's water resource needs to the year 2000 (chapter 15, page 321).
- Review of recent developments in the Australian Mineral Industry (chapter 16, pages 358-361).
- Details of funding under the 1984 Commonwealth-State Housing Agreement (chapter 19, pages 407-409).

PREFACE

The Year Book is the principal reference work produced by the Central Office of the Australian Bureau of Statistics (ABS). It provides a comprehensive and detailed statistical review of all aspects of the economy and social conditions of Australia. In addition, it contains descriptive matter dealing with Australia's history, geography, physiography, climate and meteorology, government, defence and repatriation services and international relations.

The first Official Year Book was published early in 1908. This is the sixty-ninth Year Book issued under the authority of the Commonwealth Government and follows a similar pattern to previous editions. However chapters have been revised and new material has been added. Readers are referred to *Features of this Issue* listed on the facing page for new material included in this edition. In the various chapters of the Year Book, and in the list on page 679 preceding the general index, there are references to special articles, background material and items of historic interest which have appeared in previous issues.

Most of the statistics contained in this volume relate to the years ended June or December 1983 or 1984. More detailed, and in many cases more recent, statistics are available in other ABS publications. The more significant of these publications are listed at the end of the relevant chapters of the Year book; the ABS Catalogue of Publications (1101.0) lists all current publications of the ABS.

My thanks are tendered to the responsible officers of the various Commonwealth and State Departments and Organisations who have kindly supplied material for the preparation of this Year Book.

R. J. CAMERON
Australian Statistician

Australian Bureau of Statistics
Canberra
April 1985

ACKNOWLEDGMENTS

A number of government departments as well as private organisations and bodies have provided information in conjunction with the Australian Bureau of Statistics for inclusion in the Year Book.

The Bureau would like to thank the following institutions who either supplied basic material for the various articles or advised on their preparation:

CHAPTER TWO:

CLIMATE AND PHYSICAL GEOGRAPHY
Bureau of Meteorology, Melbourne

CHAPTER THREE:

GENERAL GOVERNMENT
Attorney-General's Department
Australian Electoral Office
Department of the Prime Minister and Cabinet
Department of Administrative Services

CHAPTER FOUR:

DEFENCE
Department of Defence
Department of Defence Support

CHAPTER FIVE:

INTERNATIONAL RELATIONS
Department of Foreign Affairs

CHAPTER SEVEN:

PRICES
Prices Surveillance Authority

CHAPTER NINE:

SOCIAL SECURITY AND WELFARE
Department of Social Security
Department of Veterans' Affairs

CHAPTER TEN:

HEALTH
Capital Territory Health Commission
Department of Health
Department of Veterans' Affairs
Services and Investment Ltd (Cremation Society of Australia, ACT Ltd)
Home Nursing Services of the States and Territories

CHAPTER ELEVEN:

LAW AND ORDER
Australian Institute of Criminology
Australian Law Reform Commission
Attorney-General's Department

CHAPTER TWELVE:

EDUCATION
Department of Education
Commonwealth Tertiary Education Commission
Office of Youth Affairs

CHAPTER THIRTEEN:

AGRICULTURAL INDUSTRIES
Australian Dairy Corporation
Australian Egg Board
Australian Meat and Livestock Corporation
Australian Wheat Board
Australian Wool Corporation
Bureau of Agricultural Economics
Bureau of Meteorology
Department of Primary Industry

CHAPTER FOURTEEN:

FORESTRY AND FISHING
Commonwealth Scientific, Industrial and Research Organization (CSIRO)
Fisheries Division, Department of Primary Industry
Forestry Branch, Department of Primary Industry

CHAPTER FIFTEEN:

WATER RESOURCES
CSIRO—Science Liaison Branch
Department of Resources and Energy
Department of Transport and Works, Darwin
Engineering and Water Supply Department, Adelaide
NSW Water Resources Commission
Public Works Department, Perth
Queensland Water Resources Commission
River Murray Commission
State Rivers and Water Supply Commission of Victoria

CHAPTER SIXTEEN:

MINERAL INDUSTRIES
Australian Mineral Development Laboratories (AMDL)
Commissioner for Taxation
Department of Business and Consumer Affairs—Bureau of Customs
Bureau of Mineral Resources, Geology and Geophysics

CHAPTER SEVENTEEN:

MANUFACTURING AND INTERNAL TRADE
Bureau of Industry Economics
Commonwealth Scientific, Industrial and Research Organization (CSIRO)
National Standards Commission
Standards Association of Australia

CHAPTER EIGHTEEN:

ENERGY
Commonwealth Scientific, Industrial and Research Organization (CSRIO)
Department of Resources and Energy
Department of Trade

CHAPTER NINETEEN:

HOUSING AND CONSTRUCTION
Defence Services Homes Corporation
Department of Housing and Construction
Department of Territories and Local Government

CHAPTER TWENTY:

TRANSPORT AND COMMUNICATION
Australia Post
Australian Broadcasting Corporation
Australian Broadcasting Tribunal
Australian Road Research Board
Department of Aviation
Department of Communications
Department of Industry and Commerce
Department of Transport
National Association of Australian State Road Authorities
Overseas Telecommunication Commission (Australia)
Telecom Australia

CHAPTER TWENTY-ONE:

PRIVATE FINANCE
Life Insurance Commission
Reserve Bank of Australia

CHAPTER TWENTY-TWO:

PUBLIC FINANCE
Australian Taxation Office
Department of Primary Industry

CHAPTER TWENTY-FOUR:

FOREIGN TRANSACTIONS
Australian Customs Service, Department of Industry and Commerce

CHAPTER TWENTY-FIVE:

SCIENCE AND TECHNOLOGY
Commonwealth Scientific, Industrial and Research Organization (CSRIO)
Department of Science and Technology

CHAPTER TWENTY-SIX:

NATIONAL ESTATE, CULTURE, RECREATION AND TRAVEL
Australia Council
Department of Sport, Recreation and Tourism
Department of Territories and Local Government

CHAPTER TWENTY-SEVEN:

THE TERRITORIES
ACT Schools Authority
Department of Territories and Local Government
Department of Sport, Recreation and Tourism

GENERAL INFORMATION

Symbols

The following *symbols*, where shown in columns of figures or elsewhere in tables mean:

n.a.	not available
n.y.a.	not yet available
—	nil or rounded to zero
. .	not applicable
n.p.	not available for separate publication (but included in totals where applicable)
p	preliminary—figure or series subject to revision
r	figures or series revised since previous issue
n.e.i.	not elsewhere included
n.e.c.	not elsewhere classified
———	break in continuity of series (where drawn across a column between two consecutive figures)
*	subject to sampling variability too high for most practical purposes.
	m.—males; f.—females; p.—persons.

Other forms of usage

The following *abbreviations* are used for the titles of the Australian States and Territories and Australia: N.S.W. (New South Wales), Vic. (Victoria), Qld (Queensland), W.A. (Western Australia), S.A. (South Australia), Tas. (Tasmania), N.T. (Northern Territory), A.C.T. (Australian Capital Territory), Aust. (Australia).

In general, the *statistics in this volume relate to the States and Territories of Australia*, i.e. they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 27, The Territories of Australia.

Yearly periods shown as e.g. 1984 refer to the year ended 31 December 1984; those shown as e.g. 1983–84 refer to the year ended 30 June 1984. Other yearly periods are specifically indicated. The range of years shown in table heading, e.g. 1901 to 1983–84, indicates the period covered, but does not necessarily imply that each intervening year is included.

Values are shown in Australian dollars ($ or $A) or cents (c) unless another currency is specified.

Catalogue numbers. Throughout this book references are made to ABS publications. In each case the catalogue number is shown in brackets; this should be quoted when ordering these publications (*see* below).

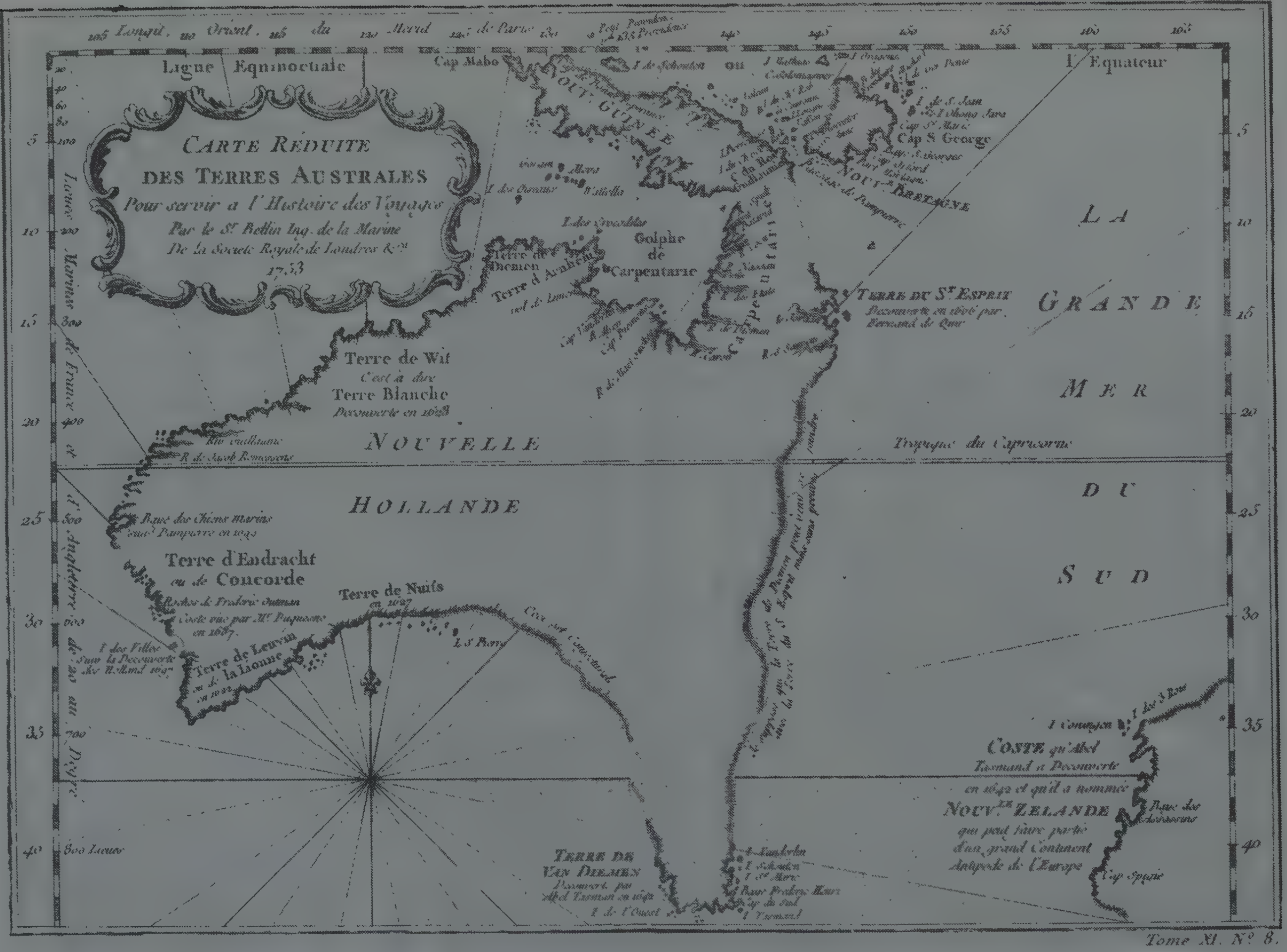
Where figures have been rounded, *discrepancies may occur between sums of the component items and totals*.

Availability of ABS publications

Information regarding the availability of ABS publications can be obtained from the Information Services Section, Australian Bureau of Statistics, P.O. Box 10, Belconnen, A.C.T. 2616, Australia, phone (062) 52 6627, or from ABS offices in any capital city in Australia.

A complete list of ABS publications produced in Canberra and in each of the State Offices is contained in the ABS *Catalogue of Publications, Australia* (1101.0) which is available from any ABS office.

In some cases, the ABS can also make available information which is not published. This information may be made available in one or more of the following forms: microfiche, photocopy, data tape, computer printout, clerically extracted tabulation. Generally, a charge is made for providing unpublished information. Inquiries may be made by contacting Information Services in the nearest ABS office.


Carte Réduite
des Terres Australes
Pour servir a l'Histoire des Voyages
Par le Sr. Bellin Ing. de la Marine
De la Societe Royale de Londres &ca.
1753
Ligne Equinoctiale
l'Equateur
Longit. Orient. du Merid. de Paris
Lieues Marines de France et d'Angleterre de 20 au Degré
800 Lieues
Cap Mabo
I. de Schouten
Nouv. Guinée
Nouv. Bretagne
Cap S. George
La Grande Mer du Sud
Terre du St. Esprit
Decouverte en 1606 par Fernand de Quir
Golphe de Carpentarie
Carpentarie
Terre de Diemen
Terre d'Arnheim
Terre de Wit
C'est a dire
Terre Blanche
Decouverte en 1628
Nouvelle Hollande
Tropique du Capricorne
Baye des Chiens marins
Terre d'Endracht ou de Concorde
Terre de Nuits en 1627
Terre de Leuvin ou de la Lionne
Terre de Van Diemen
Decouverte par Abel Tasman en 1642
Coste qu'Abel Tasman a Decouverte en 1642 et qu'il a nommée
Nouvle. Zelande
qui peut faire partie d'un grand Continent Antipode de l'Europe
Cap Sud
Tome XI. No. 8.

CARTE RÉDUITE DES TERRES AUSTRALES

Reproduced from the map, by French cartographer Sr Bellin, in the Rex Nan Kivell Collection, National Library of Australia. This historic map, drawn in 1753, shows the influence early voyages of discovery had on the emerging outline of the Great South Land.

PLATE 1

National Library of Australia

CHAPTER 1

PRE-HISTORY TO FEDERATION

Early knowledge and discovery of Australia

Pre-history

Humans entered the Australian continent from the South-East Asian area during the last glaciation at least 40,000 years ago, at a time when sea levels were much lower than they are today. Even so, these first migrations would have entailed a sea voyage of some 60 kilometres, making it possibly the world's earliest sea-borne migration. Settlement was well established 25,000 to 30,000 years ago and by 20,000 years ago almost the entire continent was inhabited.

The original Australians lived as hunter-gatherers, using tools of wood, bone, shell and stone. Archaelogical evidence indicates, that a simple pan-continental toolmaking tradition existed characterised by stone ware tools; scrapers were used to fashion further tools out of wood. This tradition persisted until 5,000 to 6,000 years ago, at which time a range of more specialised small tools began to emerge. But, in Tasmania, isolated up until 12,000 years ago by the post-glacial rising seas, Aboriginals still maintained the culture of the late Pleistocene period, until subject to the influence of European settlement of the island.

Anthropologists estimate the number of Aboriginals in Australia at 1788 to vary from 250,000 to 300,000, they were divided into some 500 small groups and spoke a variety of languages and dialects. These groups or 'tribes' were further divided into 'bands' or clusters of family groups and formed the basic self-sufficient economic unit. Labour was divided between the sexes: the men hunted while the women foraged for roots and seeds and caught small animals which also formed a basic part of their subsistence. Local groups would congregate when food or water supplies were abundant or when ceremonial obligations demanded. Exchanges of goods at these ceremonial gatherings led to their wide dispersal. Religious and ceremonial activities relating to the land were a vital part of Aboriginal life and evidence suggests, they had developed the use of ochre as a ritual painting material as early as 25,000 years ago.

The physical barriers of distance and aridity within Australia itself, were cause in part, of the cultural isolation and linguistic diversity of its people. European exploration and settlement was for most Aboriginal societies their first contact with an outside culture. The impact of this settlement in those areas where the colonists established themselves, led rapidly to the disappearance of the traditional Aboriginal way of life.

Terra Australis

Although references to an Austral land are found in the works of writers in the early centuries after Christ, and evidence appears in maps, globes, and manuscripts from the Middle Ages onward, there is no definite evidence connecting this *Terra Australis* or southern land, as it was then known, with Australia. However Cornelius Wytfliet's global map of 1597, *see* over, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria.

Early discoveries of Australia

The early maps indicate, that Portuguese mariners under Mendonca chartered part of the Australian east coast between 1521 and 1523. It has been suggested that the Arabs may have come to Australia even earlier, though there is no evidence to support this theory. For most purposes, the coastal exploration of Australia is taken as having begun with the Spaniards and the Dutch.

Discoveries by the Spanish

In 1606 the Spaniard, Quiros, on reaching the island of Espiritu Santo, the largest island of the New Hebrides group, thought he had discovered the great land of the south and therefore named the group *La Austrialia del Spirit u Santo*, in honor of Philip III of Spain, of the Austrian royal house.

After leaving the New Hebrides, Quiros sailed eastward, and therefore away from Australia, but Torres his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability Torres sighted the Australian continent, although no mention of it is made in his records.

Discoveries by the Dutch

The map published by Cornelius Wytfliet in 1597 and shown opposite, indicates roughly the eastern and western coast of Australia, as well as the Gulf of Carpentaria. However the Dutch first explored the coastline of Australia when, during 1606, the yacht *Duyfken* under the command of William Jansz having coasted along the southern shores of New Guinea, followed the west coast of Cape York Peninsula as far as Cape Keer-Weer (Turn Again). Subsequent visits were made by Hartog (1616), de Houtman (1619), Carstensz (1623), Thijssen (1627), Pelsaert (1629), Tasman and others (1642). By 1644 the Dutch had discovered and explored the Australian coast from Fowler's Bay in the South, to the tip of Cape York Peninsula, as well as the south of Tasmania.

More detailed information on discoveries by the Dutch can be found in Year Book No. 63.

Discoveries by the English

The English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier in the trading vessel *Cygnet*. In 1699 he again visited Australia in command of H.M.S. *Roebuck*. On his return to England, he published an account in which a description was given of trees, flowers, birds, and reptiles he had observed, and of his encounters with the natives.

Up until the end of the seventeenth century, it was not certain if Tasmania and New Zealand were parts of Australia or whether they were separated from it, yet formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though undertaken primarily for the purpose of observing the transit of Venus from Tahiti had also the objective of ascertaining whether the unexplored part of the southern hemisphere did in fact contain another continent. In command of H.M.S. *Endeavour*, and accompanied by botanist Sir Joseph Banks, naturalist Dr Daniel Solander, astronomer Charles Green, draughtsmen and servants, Cook, after observing the transit of Venus at Tahiti, turned towards New Zealand, sighting that land on 7 October 1769 in the neighbourhood of Poverty Bay.

On 20 April 1770, Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who saw it first. Coasting northwards, on 29 April 1770 he landed at Botany Bay. Cook resumed his voyage and sailed along the coast in a northerly direction for nearly 2,100 kilometres, before striking a coral reef in the vicinity of Trinity Bay where the *Endeavour* was seriously damaged. It was nearly two months before repairs were completed and Cook again set a course to the north through Torres Strait.

Detailed notes on Cook's voyages can be found in Year Book No. 63.

The annexation of Australia

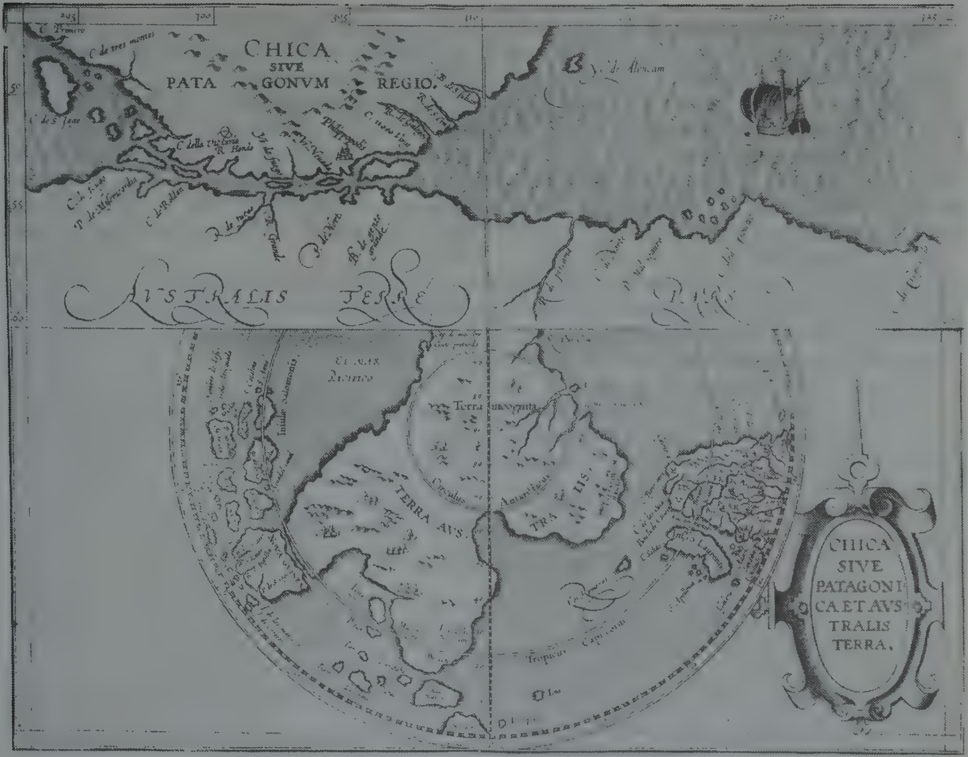
Possession taken of the eastern coast of Australia by Captain Cook

On 22 August 1770, Captain Cook took possession 'of the whole eastern coast, from latitude 38°S, to this place, latitude 10½°S, in right of His Majesty King George the Third', that is, over what now constitutes Victoria, the eastern parts of New South Wales and Queensland.

Annexation of the eastern part of the Australian continent and Tasmania

Formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was taken on 26 January 1788, when Captain Phillip's commission, first issued to him on 12 October 1786 and amplified on 2 April 1787, was read to the people whom he had brought with him in the 'First Fleet'. The commission appointed Phillip 'Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland, westward as far as the one hundred and thirty-fifth degree of east longitude, reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south'.

By the middle of 1829, the whole territory, now known as Australia, had been constituted a dependency of the United Kingdom.



AUSTRALIS TERRE PARS

A reproduction of the original, by Cornelius Wytfliet in 1597, held in the Rare Map Section, National Library of Australia. Wytfliet describes the Australis Terre as 'the most southern of all lands' venturing the opinion that 'were it thoroughly explored it would be regarded as a fifth part of the world.' Two hundred years later colonial explorers were to prove his words correct.

National Library of Australia

PLATE 2

The exploration of Australia

Early exploration

From 1788, when Governor Phillip established his colony on the shores of Port Jackson, expeditions began to explore the immediate area of settlement in search of good farming land. Among suitable locations discovered were those just above the head of the Parramatta River, where the settlement of Rose Hill (later Parramatta) was established in November 1788, and the alluvial flats of the Hawkesbury River, which were explored in 1789.

Other minor exploratory journeys in the 1790s and early 1800s included: John Wilson's investigation of various parts of the Southern Highlands of New South Wales, Lieutenant John Shortland's discovery of the Hunter River and the future site of Newcastle, and expeditions by Henry Hacking (1794), George Bass (1796), Francis Barrallier (1802) and George Caley (1804) in attempts to penetrate the mountain foothills west of the Nepean River.

After two decades of colonisation, settlement stretched along the east coast from the Hawkesbury River to the cedar forests of Illawarra yet reached barely 65 kilometres inland, where a seemingly impenetrable barrier was presented in the form of the Blue Mountains.

In 1813, Gregory Blaxland, Lieutenant William Lawson and William Charles Wentworth succeeded in finding a route through the mountain range, thereby allowing the later exploratory parties of George William Evans (1813 and 1815), John Oxley (1817 and 1818), Allan Cunningham (1823 and 1827), Hamilton Hume and William Hovell (1824) and others, to open the way for expansion from Port Phillip in the south, to the Darling Downs in the north.

Exploring the eastern rivers and to the south

From 1828 to 1841, exploration of south-eastern Australia was concerned mainly with establishing the existence or not of a large river system emptying into the sea on the south coast.

Between December 1828 and February 1829, an expedition led by Charles Sturt followed the Macquarie River to its meeting with the Darling River, Sturt also explored part of the Castlereagh River. On his next expedition, in 1830, Sturt pieced together more of the network of waterways which make up the Murray-Darling system by following the Murrumbidgee River from Jugiong down to the junction with the Murray, which he then followed as far as Lake Alexandrina and Encounter Bay on the southern coastline. Sturt completed his exploration of the Murray in 1838 by investigating, and charting its upper reaches.

Meanwhile, Captain John MacArthur and others, had discovered that merino sheep were naturally suited to the dry climate of inland Australia. The colony's wool industry flourished, and by 1831, 1,340,000 kilograms of fine wool was being exported annually. As a result of the wool boom, settlers became anxious to push further inland in the search for new pastures.

In three expeditions between 1831 and 1836 Thomas Livingstone Mitchell, explored the Liverpool Plains and discovered the Macintyre River; discovered well-grassed country at the junction of the Darling and Bogan Rivers; explored the Lachlan River to its meeting with the Murrumbidgee River, the Murray to its meeting with the Darling River, and south and south-east of the Murray through the region he called 'Australia Felix' to Discovery Bay on the southern coast.

The push south continued and, in 1838, Angus McMillan discovered a practicable route from Monaro to the southern coastline. In 1840, Paul Edmund de Strzelecki made a journey from the Murrumbidgee River, south to Melbourne, during which he discovered and named Mount Kosciusko.

Exploring the south

In 1831, Captain Collet Barker landed at what was to become Port Adelaide. Later cattle-droving journeys undertaken by Joseph Hawdon, Charles Bonney, Charles Sturt and E. J. Eyre established links between the settlement of Adelaide and other settlements in the east of the state.

In August 1844, Charles Sturt led a sixteen-man expedition from Adelaide into the interior with instructions to investigate a theory that an inland sea existed. After much hardship and near disaster during a period of exceptional heat in the region, Sturt found the channels of Cooper's Creek which formed part of the inland river system of Queensland. However, with the waters drying up rapidly in the November 1845 heat and his health deteriorating, Sturt was forced to retreat, mistakenly declaring the land to be worthless.

Exploring north-eastern Australia

In 1844 Ludwig Leichhardt left Jimbour Station on the Darling Downs, to lead an expedition on an epic 14½ month, 4,800 kilometre journey north and north-west to Port Essington, thereby winning a reputation for opening up large tracts of rich grazing land. In 1848, however, while on another expedition he and his party disappeared without trace, when attempting to cross the continent westwards to Perth. Paradoxically much valuable incidental exploration was carried out when search parties attempted to find them.

Meanwhile, Thomas Mitchell's fourth expedition, in 1846, had failed in its objective to find a river which flowed to the northern coast, but did lead to the opening up of good pastoral country in the Maranoa and Barcoo Rivers regions.

In 1848, E. B. Kennedy was speared to death by local Aboriginals while exploring the interior of Cape York Peninsula from Rockingham Bay to the Cape.

In the mid-to late-1850s, Angus C. Gregory led two expeditions: one, in 1855 across northern Australia in a west-east direction from the mouth of the Victoria River to the east coast at Port Curtis; and the other, in 1858, from the Barcoo River south to Adelaide.

Exploration of what was by then the new colony of Queensland was continued through the 1860s and 1870s by George Dalrymple, Ernest Henry, the Macdonald brothers, William Hann, James Venture Mulligan, R. L. Jack and others, these led to the founding of such towns as Bowen, Rockhampton and Mackay, and the opening up of much valuable farming land.

Across the continent south to north

In the late 1850s and early 1860s, most exploratory interest was concentrated on Central Australia, especially after John McDouall Stuart raised a Union Jack on what he considered to be the geographic centre of the continent Central Mount Stuart, in April 1860. The South Australian Government had previously offered a large reward to the first explorer to cross Australia from south to north.

In August 1860, Robert O'Hara Burke and W. J. Wills set out from Melbourne with a large party to take up the challenge. On 11 February 1861, four expedition members (Burke, Wills, John King and Charles Gray) reached a mangrove swamp on what appeared to be the coast at the Gulf of Carpentaria (though they could not see the sea). After a succession of sorry incidents, however, Burke, Wills and Gray all died of exposure and starvation while on their return journey.

As in the case of Leichhardt, search parties sent out after Burke and Wills also discovered much valuable land in their own right: John McKinlay led an expedition from Adelaide to the north-east; William Landsborough from the Gulf of Carpentaria southward; and Frederick Walker from Rockhampton to the west.

Meanwhile, John McDouall Stuart had set out from Adelaide on his own expedition across Australia and, in July 1862, reached the sea at Van Diemen Gulf.

Exploring the west

As early as 1697, Willem de Vlamingh of the Dutch ship *Geelvinck*, carried out limited inland exploration on the west coast of Australia in the vicinity of the Swan River. However, the first major inland exploration in the colony of Western Australia took place 130 years later when, in 1827, Edmund Lockyer explored the watershed of the Kalgan River to within about 60 kilometres of its mouth.

In the 1830s, exploration and settlement was directed mainly to the south of the city of Perth (founded in 1829). Among the explorers during this decade were: Ensign Robert Dale, who found the rich agricultural land of the Avon Valley (1830); Lieutenant H. W. Bunbury, who opened the way to rich pastoral flats in the south-west (1836); and Captain George Grey, who discovered the rich hinterland that now serves Geraldton (1839).

In 1848, J. S. Roe, who had also conducted several exploratory journeys in the 1830s, discovered good grazing country while on a 2,900 kilometre York-Pallinup River, Russell Range-Bunbury-Perth trek.

During the 1850s and 1860s the south-west was extensively occupied as far south as Albany and Kojonup, while to the north the Greenough district rapidly developed into the principal wheat-producing region of the State.

Due largely to the efforts of Grey in the 1830s, the Gregory brothers in the 1840s, 1850s and 1860s, and the Forrest brothers in the 1860s and 1870s, pastoralists were able to gradually push further north and occupy the Murchison, Gascoyne and De Grey districts. By the 1880s, again due largely to exploration by the Forrest brothers, the Kimberley region was also settled.

Exploring the hinterland

In 1875, Ernest Giles set out from Beltana, South Australia, and made a 4,000 kilometre journey to Perth. Two years previous, two other parties, led by Peter Egerton Warburton and W. C. Gosse had explored west from the MacDonnell Ranges to the Oakover River, and from Alice Springs to Perth respectively.

Exploration of the hinterland was continued by W. P. Goddard (1890), J. H. Rowe (1895), A. W. Canning and others into the early twentieth century.

Exploring Tasmania

In 1793 Lieutenant John Hayes, commander of the *Duke of Clarence* expedition sailed up the Derwent River to the foot of Mt Direction from where he proceeded by boat up to the present site of New Norfolk, he became the first explorer to journey more than a few kilometres inland from the coast of Van Diemen's Land (by which name Tasmania was known until 1856). Then, as always, the island's rugged topography hindered any extensive exploration, and it was not until 1807 that Lieutenant Thomas Laycock crossed the island from Port Dalrymple to Hobart.

Much early exploration was carried out either, with the encouragement of Lieutenant-Governor William Sorell (including expeditions aimed primarily at discovering the nature of the west coast and determining its suitability for a future penal settlement), or under the auspices of the Van Diemen's Land Company which fostered efforts to find land suitable for agricultural settlement.

Some of the most noteworthy of Tasmania's early explorers were official surveyors, including John Oxley, G. W. Evans and Thomas Scott who, between 1820 and 1837, examined parts of the east, north-west and west coasts and, no doubt, influenced decisions to establish the infamous penal settlements at Macquarie Harbour (in 1822) and Port Arthur (in 1830).

Between 1820 and 1840 a considerable amount of incidental exploration resulted both from expeditions to round up the remaining Tasmanian Aboriginals following the declaration of martial law against them in 1828; and from the personal encouragement by Lieutenant-Governor Sir John Franklin of scientific expeditions to Tasmania in the late 1830s and early 1840s.

During 1840 and 1850, licensed surveyor N. L. Kentish was responsible for opening up the rich pastoral areas between the north-west coast and the high mountains, while Assistant-Surveyor James Scott explored much of the north-east.

The years 1860 and 1870 were marked by a number of exploratory journeys in search of minerals, including those of Charles Gould (1862), who found traces of silver, lead and gold in the Franklin and Gordon Valleys; James Smith (1871), who discovered tin at Mt. Bischoff, destined to become the richest mine of its kind in the world; and C. P. Sprent (1876-77), who found gold, copper, osmiridium and platinum while prospecting between the Arthur and Pieman Rivers.

The establishment of the Commonwealth of Australia

Federation

On 1 January 1901, the colonies, with the exception of New Zealand, were federated under the name of the 'Commonwealth of Australia', the designation of 'Colonies'—except in the case of the Northern Territory, to which the designation 'Territory' applied—being at the same time changed to that of 'States'.

Transfer of the Northern Territory to the Commonwealth

On 7 December 1907, the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the *Northern Territory Surrender Act, 1907* and by the Commonwealth Parliament under the *Northern Territory Acceptance Act 1910*. The Territory was formally transferred to the Commonwealth on 1 January 1911, and became the Northern Territory of Australia.

By Imperial Order in Council dated 23 July 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth on 10 May 1934, in the *Ashmore and Cartier Islands Acceptance Act 1933*, under the name of the Territory of Ashmore and Cartier Islands. The Act authorised the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July 1938 annexed the islands to the Northern Territory, whose laws, ordinances, and regulations, then applied, where applicable. On the attainment of self-government by the Northern Territory on 1 July 1978, the Territory of Ashmore and Cartier Islands was retained as Commonwealth Territory.

Ashmore Reef is approximately 150 kilometres square. It is situated 350 kilometres off the western coast of Australia, and 850 kilometres west of Darwin. Cartier Island is approximately 9 square kilometres in area (to the limit of the reef), and is situated 290 kilometres off the western coast of Australia, 790 kilometres west of Darwin.

Transfer of the Australian Capital Territory to the Commonwealth

On 18 October 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 2,359 square kilometres as the Seat of Government of the Commonwealth. In December 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5 December 1910 a proclamation was issued vesting the territory in the Commonwealth on and from 1 January 1911.

By the *Jervis Bay Territory Acceptance Act 1915*, an area of 73 square kilometres at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was also accepted by the Commonwealth and was transferred as from 4 September 1915.

Present composition of Australia

In 1973, the total area of Australia and of the individual States and Territories was determined by the Division of National Mapping as 7,682,300 square kilometres. Some historical dates and the present areas of the several States and Territories and of Australia are shown in the following table.

AUSTRALIA: COMPONENT STATES AND TERRITORIES

State or Territory	*Year of annexation*	*Year of first permanent settlement*	*Year of formation into separate Colony or Territory*	*Year in which responsible government was granted*	*Present area in km²*
New South Wales	1770	1788	1786	1855	801,600
Victoria	1770	1834	1851	1855	227,600
Queensland	1770	1824	1859	(*a*) 1859	1,727,200
South Australia	1788	1836	1834	1856	984,000
Western Australia	1829	1829	1829	1890	2,525,000
Tasmania	1788	1803	1825	1855	67,800
Northern Territory	..	..	(*b*) 1863	..	1,346,200
Australian Capital Territory	..	..	(*c*) 1911	..	2,400
Australia	..	..	..	**(*d*)**	**7,682,300**

(*a*) As part of New South Wales in 1855; as a separate colony in 1859. (*b*) Previously part of New South Wales; brought under the jurisdiction of South Australia in 1863; transferred to the Commonwealth in 1911. (*c*) Previously part of New South Wales. (*d*) Constituted as from 1 January 1901.

The external Territories of Australia

Norfolk Island

In 1856, Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1897, it was made a dependency under the Governor of that colony and finally, by the passage of the *Norfolk Island Act 1913*, it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 02′ S., longitude 167° 57′ E., and comprises an area approximately 36 square kilometres. It served as a penal station from 1788-1813 and from 1825-1855.

The old Military Barracks, Kingston, Norfolk Island.

Australian Information Service

Australian Antarctic Territory

An Imperial Order in Council of 7 February 1933 placed under Australian authority 'all the islands and territories other than Adelie Land which are situated south of the 60° S. latitude and lying between the 160° E. longitude and the 45° E. longitude'.

The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passing of the *Australian Antarctic Territory Acceptance Act 1933* by the Commonwealth Parliament. The boundaries of Adelie Land were definitely fixed by a French Decree of 1 April 1938 as latitude 60° S., longitude 136° E., and longitude 142° E. For map *see* chapter 27 of this Year Book.

Heard and McDonald Islands

Heard Island and the McDonald Islands, approximately 4,100 kilometres south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26 December 1947. Heard Island is approximately 43 kilometres long and 20 kilometres wide, while the McDonald Islands, about 43 kilometres to the west of Heard Island, are small, rocky and precipitous.

Cocos (Keeling) Islands

The *Cocos (Keeling) Islands Act 1955* provided for the acceptance of the Cocos Islands as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. On 6 April 1984 the Cocos Malay community, in an Act of Self Determination which took the form of a referendum, observed by the United Nations, chose to integrate with Australia. Day-to-day affairs in the Territory are managed by an Administrator appointed by the Governor-General and responsible to the Minister for Territories and Local Government. The 27 coral islands of the territory have an area of about 14 square kilometres, and are situated in the Indian Ocean in latitude 12° 05′ S. and longitude 96° 53′ E.

Christmas Island

The *Christmas Island Act 1958* provided for the acceptance of Christmas Island as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1 October 1958. Day-to-day affairs in the Territory are managed by an Administrator under delegation from the Minister for Territories and Local Government. The area of the island is about 135 square kilometres and it is situated in the Indian Ocean in latitude 10° 25′ S. and longitude 105° 40′ E.

Coral Sea Islands

The Coral Sea Islands were declared to be a Territory of the Commonwealth of Australia by the *Coral Sea Islands Act 1969*. The scattered reefs and islands, often little more than sandbanks, spread over a sea area of about 1 million square kilometres with only a few square kilometres of actual land area, between the Great Barrier Reef, latitude 12° S. and longitude 157° 10′ E. The Minister for Territories and Local Government is responsible for matters affecting the Territory.

More detailed information on Australia's external Territories can be found in Chapter 27, *The Territories of Australia*.

The Constitution of the Commonwealth of Australia

Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the federal movement in Australia, was embodied in this chapter in earlier issues of the Year Book. A complete copy of the revised Constitution is included in Year Book No. 67, pages 2-22.

CHAPTER 2

CLIMATE AND PHYSICAL GEOGRAPHY OF AUSTRALIA

General description of Australia

This chapter is mainly concerned with the climate of Australia, although some geographic comparisons and a summary of landform features influencing climate have been included together with a summary of atmospheric climate controls.

Position and area

Position. Australia comprises a land area of 7,682,300 square kilometres. The land lies between latitudes 10° 41 ′S. (Cape York) and 43° 39 ′S. (South Cape, Tasmania) and between longitudes 113° 09 ′E. (Steep Point) and 153° 39 ′E. (Cape Byron). The most southerly point on the mainland is South Point (Wilson's Promontory) 39° 08 ′S. The latitudinal distance between Cape York and South Point, Wilson's Promontory (South East Cape, Tasmania) is about 3,180 kilometres (3,680 kilometres) respectively and the longitudinal distance between Steep Point and Cape Byron is about 4,000 kilometres.

Area of Australia compared with areas of other countries. The area of Australia is almost as great as that of the United States of America (excluding Alaska), about 50 per cent greater than Europe (excluding U.S.S.R.) and 32 times greater than the United Kingdom. The following table shows the area of Australia in relation to areas of other continents and selected countries.

AREAS OF CONTINENTS AND SELECTED COUNTRIES

('000 square kilometres)

Country	*Area*	*Country*	*Area*
Continental divisions—		Country—	
Europe (*a*)	4,936	Australia	7,682
Asia (*a*)	27,532	Brazil	8,512
U.S.S.R. (Europe and Asia)	22,402	Canada	9,976
Africa	30,319	China	9,590
North and Central America and West Indies	24,247	Germany, Federal Republic of	248
South America	17,834	India	3,288
Oceania	8,504	Indonesia	1,919
		Japan	372
		Papua New Guinea	462
		New Zealand	269
		United Kindom	244
		United States of America (*b*)	9,363
Total, land mass excluding Arctic and Antarctic continents	**135,771**		

(*a*) Excludes U.S.S.R., shown below. (*b*) Includes Hawaii and Alaska.

Land forms

The average altitude of the surface of the Australian land mass is only 300 metres. Approximately 87 per cent of that land mass is less than 500 metres and 99.5 per cent is less than 1,000 metres. The highest point is Mount Kosciusko (2,228 metres) and the lowest point is Lake Eyre (−15 metres).

Australia has three major landform features: the western plateau, the interior lowlands and the eastern uplands. The western half of the continent consists of a great plateau of altitude 300 to 600 metres. The interior lowlands include the channel country of southwest Queensland (drainage to Lake Eyre) and the Murray-Darling drainage system to the south. The eastern uplands consist of a broad belt of varied width extending from north Queensland to Tasmania and consisting largely of tablelands, ranges and ridges with only limited mountain areas above 1,000 metres.

Rivers and lakes

The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall and those of the central plains with very slight fall. Of the rivers of the northern part of the east coast, the longest are the Burdekin and the Fitzroy in Queensland. The Hunter is the largest coastal river of New South Wales, and the Murray River, with its great tributary the Darling, drains part of Queensland, the major part of New South Wales, and a large part of Victoria, finally flowing into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 2,520 kilometres, 650 kilometres in South Australia and 1,870 kilometres from South Australia to the source of the Murray. The Darling from its junction with the Murray to its junction with the Culgoa is 1,390 kilometres. The Upper Darling (1,140 kilometres) incorporates the Barwon which commences at the junction of the Culgoa to its junction with the Weir River and the Macintyre River from its junction with the Weir to its source near Maybole. The rivers of the north-west coast of Australia (Western Australia) e.g. the Murchison, Gascoyne, Ashburton, Fortescue, De Grey, Fitzroy, Drysdale, and Ord are of considerable size. So also are those rivers in the Northern Territory, e.g. the Victoria and Daly, and those on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert, and Mitchell. The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

The 'lakes' of Australia may be divided into three classes: true permanent lakes; lakes which being very shallow, become mere morasses in dry seasons or even dry up, and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening into a lake-like expanse. The second class, which are a characteristic of the interior lowlands are of considerable extent. The largest are Lake Eyre 9,500 square kilometres, Lake Torrens 5,900 square kilometres and Lake Gairdner 4,300 square kilometres.

For further information on the landforms and the geographical features of Australia earlier issues of the Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

Area, coastline, tropical and temperate zones, and standard times. The areas of the States and Territories and the length of the coastline were determined in 1973, by the Division of National Mapping, Department of National Resources, by manually digitising these features from the 1:250,000 map series of Australia. This means that only features of measurable size at this scale were considered. About 60,000 points were digitised at an approximate spacing of 0.5 kilometres. These points were joined by chords as the basis for calculation of areas and coastline lengths by computer.

The approximate high water mark coastline was digitised and included all bays, ports and estuaries which are open to the sea. In these cases, the shoreline was assumed to be where the seaward boundary of the title of ownership would be. In mangroves, the shoreline was assumed to be on the landward side. Rivers were considered in a similar manner but the decisions were rather more subjective, the line being across the river where it appeared to take its true form.

AREA, COASTLINE, TROPICAL AND TEMPERATE ZONES, AND STANDARD TIMES: AUSTRALIA

NOTE. *See* paragraphs above for methods of estimating area and coastline.

	Estimated area			*Percentage of total area*		*Standard times*	
State or Territory	*Total*	*Percentage of total area*	*Length of coastline*	*Tropical zone*	*Temperate zone*	*Meridian selected*	*Ahead of G.M.T. (a)*
	km²		km				hours (*b*)
New South Wales	801,600	10.43	1,900	..	100	150°E	(*b*)10.0
Victoria	227,600	2.96	1,800	..	100	150°E	(*b*)10.0
Queensland	1,727,200	22.48	7,400	54	46	150°E	10.0
South Australia	984,000	12.81	3,700	..	100	142°30'E	(*b*)9.5
Western Australia	2,525,500	32.87	12,500	37	63	120°E	8.0
Tasmania	67,800	0.88	3,200	..	100	150°E	(*b*)10.0
Northern Territory	1,346,200	17.52	6,200	81	19	142°30'E	9.5
Australian Capital Territory	2,400	0.03	35	..	100	150°E	(*b*)10.0
Australia	**7,682,300**	**100.00**	**36,735**	**39**	**61**	..	..

(*a*) Greenwich Mean Time. (*b*) For States with 'daylight saving' an hour should be added for this period.

Climate of Australia

General

The climate of Australia is predominantly continental but the insular nature of the land mass is significant in producing some modification of the continental pattern.

The island continent of Australia is relatively dry with 50 per cent of the area having a median* rainfall of less than 300 millimetres per year and 80 per cent less than 600 millimetres. Extreme minimum temperatures are not as low as those recorded in other continents because of the absence of extensive mountain masses and because of the expanse of ocean to the south. However, extreme maxima are comparatively high, reaching 50°C over the inland, mainly due to the great east-west extent of the continent in the vicinity of the Tropic of Capricorn.

Climatic discomfort, particularly heat discomfort, is significant over most of Australia. During summer, prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical discomfort. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe although for relatively short periods.

Climatic controls

The generally low relief of Australia causes little obstruction to the atmospheric systems which control the climate. A notable exception is the eastern uplands which modify the atmospheric flow.

In the winter half of the year (May–October) anticyclones, or high pressure systems, pass from west to east across the continent and often remain almost stationary over the interior for several days. These anticyclones may extend to 4,000 kilometres along their west-east axes. Northern Australia is then influenced by mild, dry south-east trade winds, and southern Australia experiences cool, moist westerly winds. The westerlies and the frontal systems associated with extensive depressions over the Southern Ocean exert a controlling influence on the climate of southern Australia, causing rainy periods during the winter season. Cold outbreaks, particularly in south-east Australia, occur when cold air of Southern Ocean origin is directed northwards by intense depressions having diameters up to 2,000 kilometres. Cold fronts associated with the southern depressions, or with secondary depressions over the Tasman Sea, may produce extreme day-to-day changes in temperature in southern areas, particularly in south-east coastal regions.

In the summer half of the year (November–April) the anticyclones travel from west to east on a southerly track across the southern fringes of Australia directing easterly winds generally over the continent. Fine, warmer weather predominates in southern Australia with the passage of each anticyclone. Heat waves occur when there is an interruption to the eastward progression of the anticyclone (blocking) and winds back northerly and later north-westerly. Northern Australia comes under the influence of summer disturbances associated with the southward intrusion of warm moist monsoonal air from north of the inter-tropical covergence zone resulting in a hot rainy season.

Tropical cyclones develop over the seas to the north-west and the north-east of Australia in summer between November and April. Their frequency of occurrence and the tracks they follow vary greatly from season to season. On the average, about three cyclones per season directly affect the Queensland coast, and about three affect the north and north-west coasts. Tropical cyclones approaching the coast usually produce very heavy rain in coastal areas. Some cyclones move inland, losing intensity but still producing widespread heavy rainfall. Individual cyclonic systems may control the weather over northern Australia for periods extending up to three weeks.

Rainfall

Annual. The annual 50 percentile (medium) rainfall map is shown on Plate 3. The area of lowest rainfall is east of Lake Eyre in South Australia, where the median rainfall is only about 100 millimetres. Another very low rainfall area is in Western Australia in the Giles-Warburton Range region, which has a median annual rainfall of about 150 millimetres. A vast region extending from the west coast near Shark Bay across the interior of Western Australia and South Australia to south-west Queensland and north-west New South Wales has a median annual rainfall of less than 200 millimetres. This region is not normally exposed to moist air masses for extended periods and rainfall is irregular, averaging only one or two days per month. However, in favourable synoptic situations, which occur infrequently over extensive parts of the region, up to 400 millimetres of rain may fall within a few days and result in widespread flooding.

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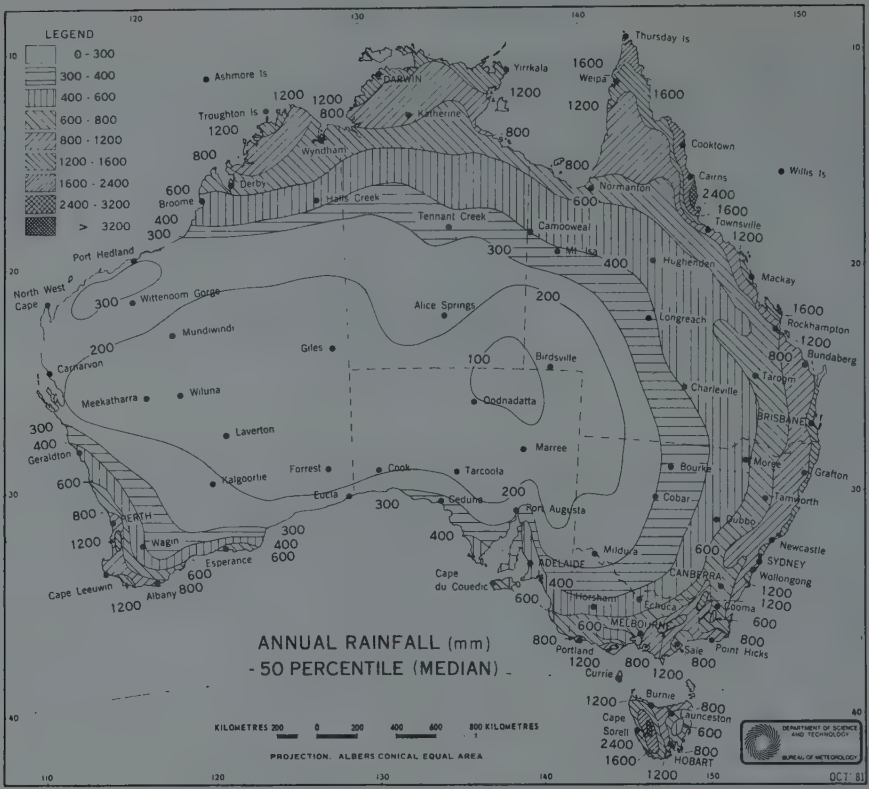
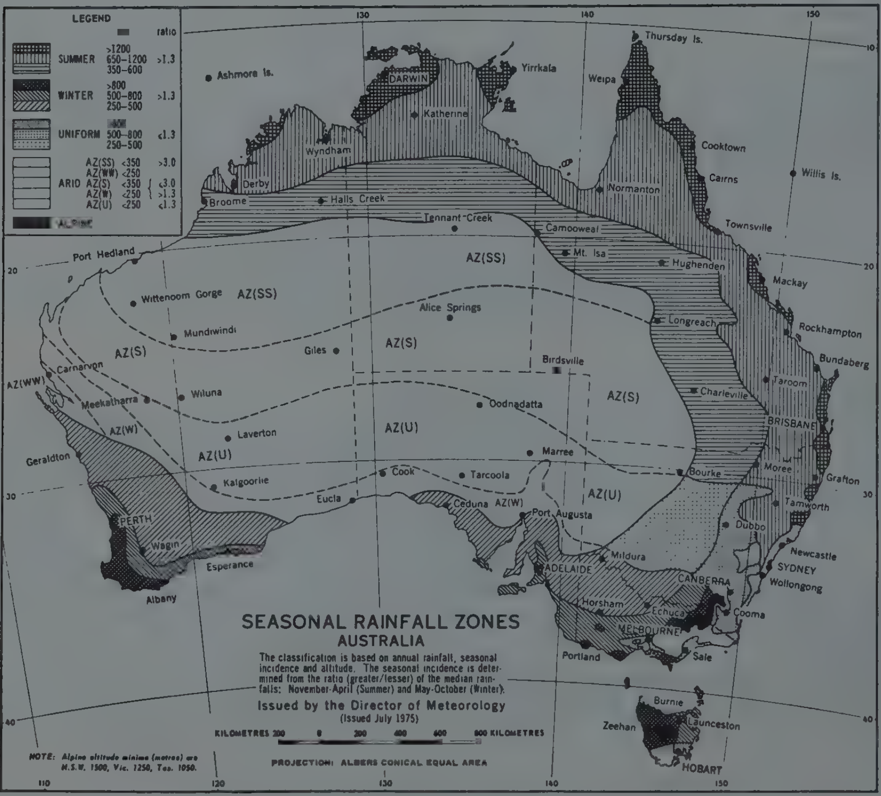
* The amount that is exceeded by 50 per cent of all recordings is the 50 percentile or the fifth decile. The 50 percentile is usually called the median.


LEGEND
0 - 300
300 - 400
400 - 600
600 - 800
800 - 1200
1200 - 1600
1600 - 2400
2400 - 3200
> 3200
ANNUAL RAINFALL (mm)
- 50 PERCENTILE (MEDIAN) -
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION. ALBERS CONICAL EQUAL AREA
DEPARTMENT OF SCIENCE AND TECHNOLOGY
BUREAU OF METEOROLOGY
OCT 81
Ashmore Is
Troughton Is
Darwin
Katherine
Yirrkala
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Carnarvon
Meekatharra
Wiluna
Giles
Alice Springs
Birdsville
Oodnadatta
Laverton
Geraldton
Kalgoorlie
Forrest
Cook
Tarcoola
Marree
Eucla
Ceduna
Port Augusta
Perth
Wagin
Esperance
Cape Leeuwin
Albany
Cape du Couedic
Adelaide
Mildura
Horsham
Echuca
Melbourne
Portland
Currie
Thursday Is
Weipa
Cooktown
Cairns
Willis Is
Normanton
Townsville
Camooweal
Mt. Isa
Hughenden
Mackay
Longreach
Rockhampton
Bundaberg
Taroom
Charleville
Brisbane
Bourke
Moree
Grafton
Cobar
Tamworth
Dubbo
Newcastle
Sydney
Wollongong
Canberra
Cooma
Point Hicks
Sale
Burnie
Launceston
Cape Sorell
Hobart


LEGEND
ratio
SUMMER >1200 650–1200 350–650 >1.3
WINTER >800 500–800 250–500 >1.3
UNIFORM 500–800 250–500 <1.3
ARID AZ(SS) <350 >3.0
AZ(WW) <250
AZ(S) <350 <3.0
AZ(W) <250 >1.3
AZ(U) <250 <1.3
ALPINE
AZ(SS)
AZ(S)
AZ(U)
AZ(W)
AZ(WW)
SEASONAL RAINFALL ZONES
AUSTRALIA
Issued by the Director of Meteorology
(Issued July 1975)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
NOTE: Alpine altitude minima (metres) are N.S.W. 1500, Vic. 1250, Tas. 1050.
Ashmore Is.
Darwin
Yirrkala
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Port Hedland
Wittenoom Gorge
Mundiwindi
Carnarvon
Meekatharra
Wiluna
Giles
Alice Springs
Birdsville
Oodnadatta
Laverton
Geraldton
Kalgoorlie
Cook
Tarcoola
Marree
Eucla
Ceduna
Port Augusta
Perth
Wagin
Esperance
Albany
Adelaide
Mildura
Horsham
Echuca
Melbourne
Portland
Sale
Cooma
Thursday Is.
Weipa
Cooktown
Cairns
Willis Is.
Normanton
Townsville
Camooweal
Mt. Isa
Hughenden
Mackay
Longreach
Rockhampton
Bundaberg
Taroom
Charleville
Brisbane
Bourke
Moree
Grafton
Tamworth
Dubbo
Newcastle
Sydney
Wollongong
Canberra
Burnie
Zeehan
Launceston
Hobart

The classification is based on annual rainfall, seasonal incidence and altitude. The seasonal incidence is determined from the ratio (greater/lesser) of the median rainfalls: November-April (Summer) and May-October (Winter).

PLATES 3 and 4

The region with the highest median annual rainfall is the east coast of Queensland between Cairns and Cardwell, where Tully has a median of 4,203 millimetres (56 years to 1980 inclusive). The mountainous region of western Tasmania also has a high annual rainfall, with Lake Margaret having a median of 3,575 millimetres (68 years to 1980 inclusive). In the mountainous areas of north-east Victoria and some parts of the east coastal slopes there are small pockets with median annual rainfall greater than 2,500 millimetres, but the map scale is too small for these to be shown.

The Snowy Mountains area in New South Wales also has a particularly high rainfall. The highest median annual rainfall isohyet drawn for this region is 3,200 millimetres, and it is likely that small areas have a median annual rainfall approaching 4,000 millimetres on the western slopes above 2,000 metres elevation.

The following table shows the area l distribution of the median annual rainfall.

AREA DISTRIBUTION OF MEDIAN ANNUAL RAINFALL: AUSTRALIA

(Per cent)

Median annual rainfall	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Under 200 mm . . .	8.0	. .	10.2	74.2	43.5	. .	15.5	29.6
200 to 300 „ . . .	20.3	6.3	13.0	13.5	29.6	. .	35.6	22.9
300 „ 400 „ . . .	19.0	19.2	12.3	6.8	10.5	. .	9.0	11.2
400 „ 500 „ . . .	12.4	11.8	13.5	3.2	4.3	. .	6.6	7.6
500 „ 600 „ . . .	11.3	14.1	11.6	1.8	3.1	12.2	5.8	6.6
600 „ 800 „ . . .	15.1	24.5	20.5	0.5	4.6	18.2	11.6	10.7
800 „ 1,200 „ . .	11.3	17.7	12.6	. .	3.7	25.0	9.6	7.7
Above 1,200 „ . .	2.6	6.4	6.3	. .	0.7	44.6	6.3	3.7
Total . . .	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Includes Australian Capital Territory.

For further information on annual rainfall, *see* Year Book No. 68.

Seasonality. As outlined under the heading of Climatic controls, the rainfall pattern is strongly seasonal in character with a winter rainfall regime in the south and a summer regime in the north.

The dominance of rainfall over other climatic elements in determining the growth of specific plants in Australia has led to the development of a climatic classification based on two main parameters. The parameters are, median annual rainfall and seasonal rainfall incidence. Plate 4, is a reduced version of the seasonal rainfall zones arising from this classification (*see* Bureau of Meteorology publication *Climatic Atlas of Australia, Map Set 5, Rainfall*, 1977).

Evaporation and the concept of rainfall effectiveness are taken into account to some extent in this classification by assigning higher median annual rainfall limits to the summer zones than the corresponding uniform and winter zones. The main features of the seasonal rainfall are:

(a) marked wet summer and dry winter of northern Australia;
(b) wet summer and relatively dry winter of south eastern Queensland and north-eastern New South Wales;
(c) uniform rainfall in south-eastern Australia—much of New South Wales, parts of eastern Victoria and in southern Tasmania;
(d) marked wet winter and dry summer of south-west Western Australia and (to a lesser extent) of much of the remainder of southern Australia directly influenced by westerly circulation;
(e) arid area comprising about half of the continent extending from the north-west coast of Western Australia across the interior and reaching the south coast at the head of the Great Australian Bight.

Variability. The adequate presentation of rainfall variability over an extensive geographical area is difficult.

One index for assessing the variability of annual rainfall is given by the ratio of the 90-10 percentile range to the 50 percentile (median value) i.e. Variability Index = $\frac{90 - 10}{50}$ percentiles. Variability based on this relationship is shown in Plate 5. The region of high to extreme variability shown in Plate 5, lies mostly in the arid zone with summer rainfall incidence, AZ(S), defined on Plate 4. In the winter rainfall zones the variability is generally low to moderate as exemplified by the south-west of Western Australia. In the tropics, random cyclone visitations cause extreme variations in rainfall from year to year: at Onslow (Western Australia), annual totals varied from 15 millimetres in 1912 to 1,085 millimetres in 1961 and, in the four consecutive years 1921 to 1924, the annual totals were 566, 69, 682 and 55 millimetres respectively. At Whim Creek (Western Australia), where 747 millimetres have been recorded in a single day, only 4 millimetres were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas: at Tully (Queensland), the annual rainfalls have varied from 7,898 millimetres in 1950 to 2,486 millimetres in 1961.

For more information on variability, *see* Year Book No. 68.

Rainday frequency. The average number of days per year with rainfall of 0.2 millimetres or more is shown in Plate 6.

The frequency of rain-days exceed 150 per year in Tasmania (with a maximum of over 200 in western Tasmania), southern Victoria, parts of the north Queensland coast and in the extreme south west of Western Australia. Over most of the continent the frequency is less than 50 rain-days per year. The area of low rainfall with high variability, extending from the north-west coast of Western Australia through the interior of the continent, has less than 25 rain-days per year. In the high rainfall areas of northern Australia rain-days number are about 80 per year, but falls heavier in this region than in southern regions.

Intensity. The highest rainfall intensities for some localities are shown in the following table. These figures represent intensities over only small areas around the recording points because turbulence and exposure characteristics of the measuring gauge may vary over a distance of a few metres. The highest rainfall measured for one hour is 330 millimetres at Deeral, Queensland, 13 March 1936. The highest 24-hour (9 a.m. to 9 a.m.) falls are also listed by States in the accompanying table. Most of the very high 24-hour falls (above 700 millimetres) have occurred in the coastal strip of Queensland, where a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls. The highest 24-hour fall (1,140 millimetres) occurred at Bellenden Ker (Top Station) on 4 January 1979. Bellenden Ker (Top Station) has also recorded the highest monthly and annual rainfall in Australia (5,387 millimetres in January 1979 and 11,251 millimetres in 1979, respectively).

The highest annual rainfalls are listed by States in the following table.

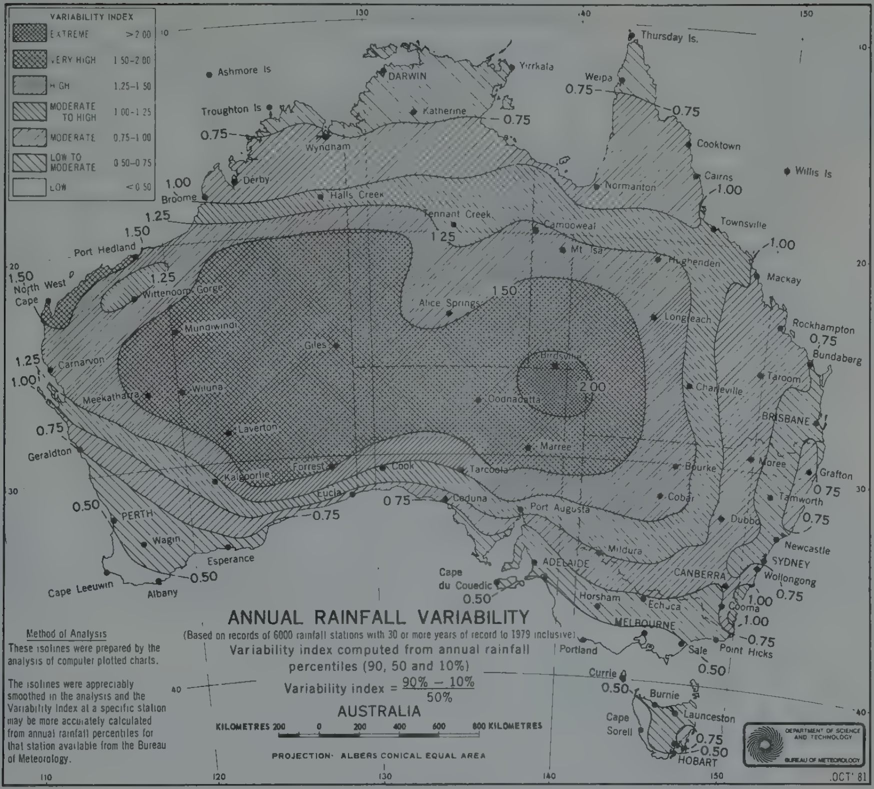
HIGHEST ANNUAL RAINFALLS
(All years to 1980 inclusive)

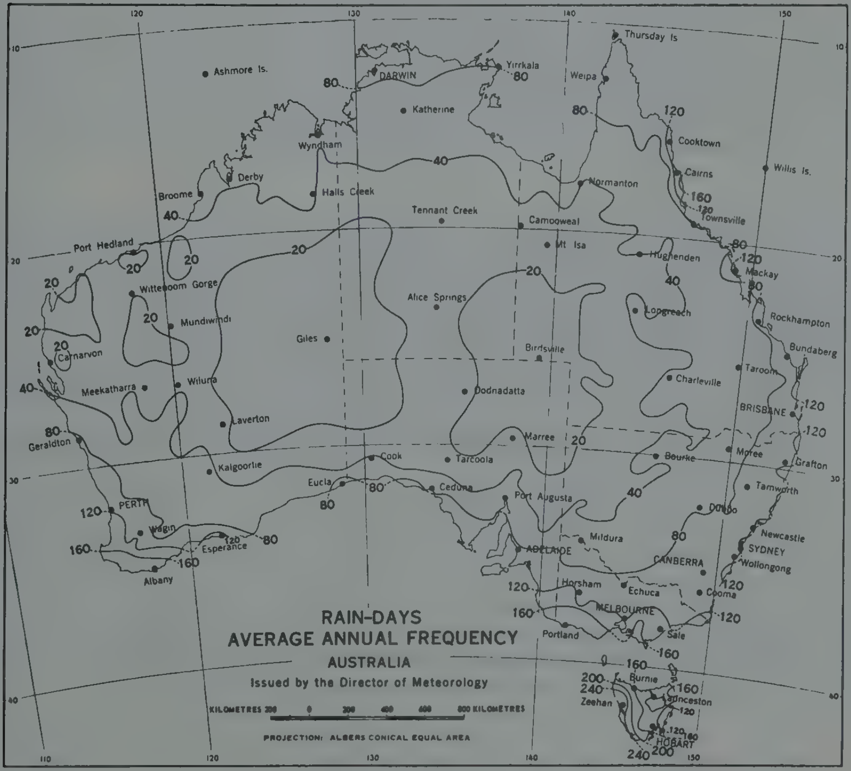
State	*Station*	*Year*	*Amount*
			mm
New South Wales	Tallowwood Point	1950	4,540
Victoria	Mt Buffalo Chalet	1917	3,342
Queensland	Bellenden Ker (Top Station)	1979	11,251
South Australia	Aldgate State School	1917	1,851
Western Australia	Karnet	1964	2,601
Tasmania	Lake Margaret	1948	4,504
Northern Territory	Elizabeth Downs	1973	2,966

HIGHEST RAINFALL INTENSITIES IN SPECIFIED PERIODS
(millimetres)

(*Source:* Pluviograph records in Bureau of Meteorology archives.)

Station	*Period of record*	*Years of complete records*	*Period in hours*				
			1	*3*	*6*	*12*	*24*
			mm	mm	mm	mm	mm
Adelaide	1897–1980	80	69	133	141	141	141
Alice Springs	1951–1980	28	75	77	87	108	150
Brisbane	1911–1980	67	88	144	182	265	327
Broome	1948–1979	32	112	157	185	313	351
Canberra	1932–1979	44	51	68	71	89	139
Carnarvon	1956–1979	24	32	63	83	95	108
Charleville	1953–1980	28	42	66	75	111	142
Cloncurry	1953–1975	20	59	118	164	173	204
Darwin (Airport)	1953–1980	25	88	138	214	260	277
Esperance	1963–1979	15	23	45	62	68	79
Hobart	1911–1980	67	28	56	87	117	168
Meekatharra	1953–1979	25	33	67	81	99	112
Melbourne	1878–1980	90	79	83	86	97	130
Mildura	1953–1977	23	49	60	65	65	91
Perth	1946–1980	33	32	38	47	64	93
Sydney	1913–1979	63	97	135	166	190	282
Townsville	1953–1980	26	88	158	235	296	319


VARIABILITY INDEX
EXTREME >2.00
VERY HIGH 1.50–2.00
HIGH 1.25–1.50
MODERATE TO HIGH 1.00–1.25
MODERATE 0.75–1.00
LOW TO MODERATE 0.50–0.75
LOW <0.50
ANNUAL RAINFALL VARIABILITY
(Based on records of 6000 rainfall stations with 30 or more years of record to 1979 inclusive)
Variability index computed from annual rainfall percentiles (90, 50 and 10%)
Variability index = 90% − 10% / 50%
AUSTRALIA
Method of Analysis
These isolines were prepared by the analysis of computer plotted charts.
The isolines were appreciably smoothed in the analysis and the Variability Index at a specific station may be more accurately calculated from annual rainfall percentiles for that station available from the Bureau of Meteorology.
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
DEPARTMENT OF SCIENCE AND TECHNOLOGY
BUREAU OF METEOROLOGY
OCT' 81
Thursday Is.
Ashmore Is
DARWIN
Yirrkala
Weipa
Troughton Is
Katherine
Wyndham
Cooktown
Derby
Cairns
Willis Is
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
Mackay
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Bundaberg
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Cobar
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Cape Leeuwin
Albany
Cape du Couedic
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART


RAIN-DAYS
AVERAGE ANNUAL FREQUENCY
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Cooktown
Wyndham
Cairns
Willis Is.
Derby
Broome
Halls Creek
Normanton
Townsville
Tennant Creek
Camooweal
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Bundaberg
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Tamworth
PERTH
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Wollongong
Albany
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART

PLATES 5 and 6

HIGHEST DAILY RAINFALLS
(All years to July 1981)

State	*Station*	*Date*	*Amount*
			mm
New South Wales	Dorrigo	21.2.1954	809
	Cordeaux River	14.2.1898	574
Victoria	Balook	18.2.1951	275
	Hazel Park	1.12.1934	267
Queensland	Bellenden Ker (Top Station)	4.1.1979	1,140
	Crohamhurst	3.2.1893	907
	Finch Hatton	18.2.1958	878
	Mount Dangar	20.1.1970	869
South Australia	Stansbury	18.2.1946	222
	Stirling	17.4.1889	208
Western Australia	Whim Creek	3.4.1898	747
	Kilto	4.12.1970	635
	Fortescue	3.5.1890	593
Tasmania	Cullenswood	22.3.1974	352
	Mathinna	5.4.1929	337
Northern Territory	Roper Valley	15.4.1963	545
	Groote Eylandt	28.3.1953	513

Thunderstorms and hail. A thunder-day at a given location is a calendar day on which thunder is heard at least once. The average annual number of thunder-days varies from 80 per year near Darwin to less than 10 per year over parts of the southern regions. Convectional processes during the summer wet season cause high thunderstorm incidence in northern Australia. The generally high incidence (40–60 annually) over the eastern upland areas is produced mainly by orographic uplift of moist air streams.

For further information on thunderstorms, *see* Year Book No. 68.

Hail, mostly of small size (less than 10 millimetres diameter), occurs with winter/spring cold frontal activity in southern Australia. Summer thunderstorms, particularly over the uplands of eastern Australia, sometimes produce large hail (greater than 10 millimetres diameter). Hail capable of piercing light gauge galvanised iron occurs at irregular intervals and can cause widespread damage.

Snow. Generally, snow covers much of the Australian Alps above 1,500 metres for varying periods from late autumn to early spring. Similarly, in Tasmania the mountains are covered frequently above 1,000 metres during these seasons. The area, depth and duration of falls are highly variable and in the lower altitude range, 500–1,000 metres, no falls occur some years. Snowfalls at levels below 500 metres are occasionally experienced in southern Australia, particularly in the foothill areas of Tasmania and Victoria, but falls are usually light and short lived. In some seasons parts of the eastern uplands above 1,000 metres from Victoria to south-eastern Queensland are covered with snow for several weeks. In ravines around Mt Kosciusko (2,228 metres) small areas of snow may persist through summer but no permanent snowfields remain.

Temperature

Average temperatures. Average annual air temperatures as shown in Plate 7 range from 28° C along the Kimberley coast in the extreme north of Western Australia to 4° C in the alpine areas of south-eastern Australia. Although annual temperature may be used for broad comparisons, monthly temperatures are required for detailed analyses.

July is the month with the lowest average temperature in all parts of the continent. The months with the highest average temperature are January or February in the south and December in the north (except in the extreme north and north-west where it is November). The slightly lower temperatures of mid-summer in the north are due to the increase in cloud during the wet season.

Average monthly maxima. Maps of average maximum and minimum temperature for January and July respectively are shown in Plates 8 and 9.

In January, average maximum temperatures exceed 35° C over a vast area of the interior and exceed 40° C over appreciable areas of the north-west. The consistently hottest part of Australia in terms of summer maxima is around Marble Bar, Western Australia (150 kilometres south-east of Port Hedland) where the average is 41° C and daily maxima during summer may exceed 40°C consecutively for several weeks at a time.

The marked gradients of isotherms of maximum temperature in summer in coastal areas, particularly along the south and west coasts, are due to the penetration inland of fresh sea breezes initiated by the sharp temperature discontinuities between the land and sea surfaces. There are also gradients of a complex nature in south east coastal areas caused primarily by the uplands.

In July a more regular latitudinal distribution of average maxima is evident. Maxima range from 30°C near the north coast to 5° C in the alpine areas of the south-east.

Average monthly minima. In January average minima range from 27° C on the north west coast to 5° C in the alpine areas of the south east. In July average minima fall below 5° C in areas south of the tropics (away from the coasts). Alpine areas record the lowest temperatures; the July average is as low as -5° C.

For further information on average monthly maxima and minima, *see* Year Book No. 68.

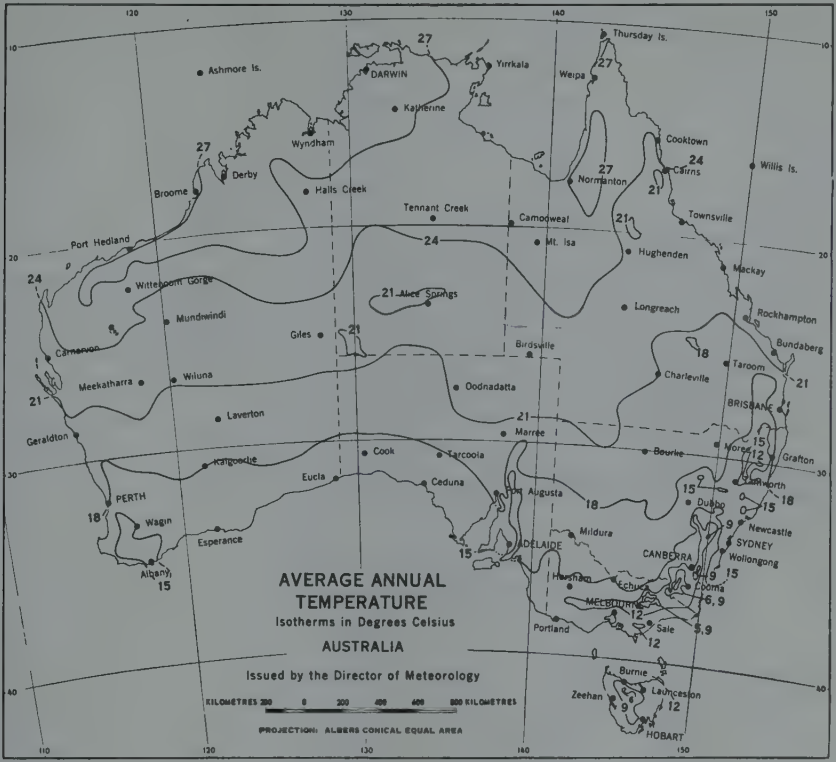

AVERAGE ANNUAL TEMPERATURE
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Ashmore Is.
DARWIN
Yirrkala
Weipa
Thursday Is.
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Normanton
Cooktown
Cairns
Willis Is.
Townsville
Port Hedland
Wittenoom Gorge
Mt. Isa
Hughenden
Mackay
Alice Springs
Longreach
Rockhampton
Mundiwindi
Carnarvon
Giles
Birdsville
Bundaberg
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Bourke
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Tamworth
PERTH
Augusta
Dubbo
Wagin
Mildura
Newcastle
SYDNEY
Esperance
ADELAIDE
CANBERRA
Wollongong
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
27
24
21
18
15
12
9
6, 9
5, 9
120
130
140
150
110
10
20
30
40

PLATE 7

Extreme maxima. Temperatures have exceeded 45°C at nearly all inland stations more than 150 kilometres from the coast and at many places on the north west and south coasts. Temperatures have exceeded 50°C at some inland stations and at a few near the coast. It is noteworthy that Eucla on the south coast has recorded 50.7°C, the highest temperature in Western Australia. This is due to the long trajectory over land of hot north-west winds from the Marble Bar area. Although the highest temperature recorded in Australia was 53.1°C at Cloncurry (Queensland), more stations have exceeded 50°C in western New South Wales than in other areas due to the long land trajectory of hot winds from the north west interior of the continent.

Extreme maximum temperatures recorded at selected stations, including the highest recorded in each State, are shown in the following table.

EXTREME MAXIMUM TEMPERATURES

(All years to July 1982)

Station	*°C*	*Date*	*Station*	*°C*	*Date*
New South Wales—			Western Australia—		
Bourke	52.8	17.1.1877	Eucla	50.7	22.1.1906
Walgett	50.1	2.1.1903	Mundrabilla	49.8	3.1.1979
Wilcannia	50.0	11.1.1939	Forrest	49.8	13.1.1979
Victoria—			Madura	49.4	7.1.1971
Mildura	50.8	6.1.1906	Tasmania—		
Swan Hill	49.4	18.1.1906	Bushy Park	40.8	26.12.1945
Queensland—			Hobart	40.8	4.1.1976
Cloncurry	53.1	16.1.1889	Northern Territory—		
Winton	50.7	14.12.1888	Finke	48.3	2.1.1960
Birdsville	50.0	24.12.1972	Jervois	47.5	3.1.1978
South Australia—			Australian Capital Territory—		
Oodnadatta	50.7	2.1.1960	Canberra (Acton)	42.8	11.1.1939
Kyancutta	49.3	9.1.1939	Canberra Airport	42.2	1.2.1968

Extreme minima. The lowest temperatures in Australia have been recorded in the Snowy Mountains, where Charlotte Pass (elevation 1,760 metres) has recorded –22.2°C on 14 July 1945 and 22 August 1947. Temperatures have fallen below -5°C at most inland places south of the tropics and at some places within a few kilometres of southern coasts. At Eyre, on the south coast of Western Australia, a minimum of -3.9°C has been recorded, and at Swansea, on the east coast of Tasmania, the temperature has fallen as low as –4.4°C.

In the tropics, extreme minima below 0°C have been recorded at many places away from the coasts as far north as Herberton, Queensland (–3.3°C). Even very close to the tropical coastline temperatures have fallen to 0°C, a low recording being –0.8°C for Mackay.

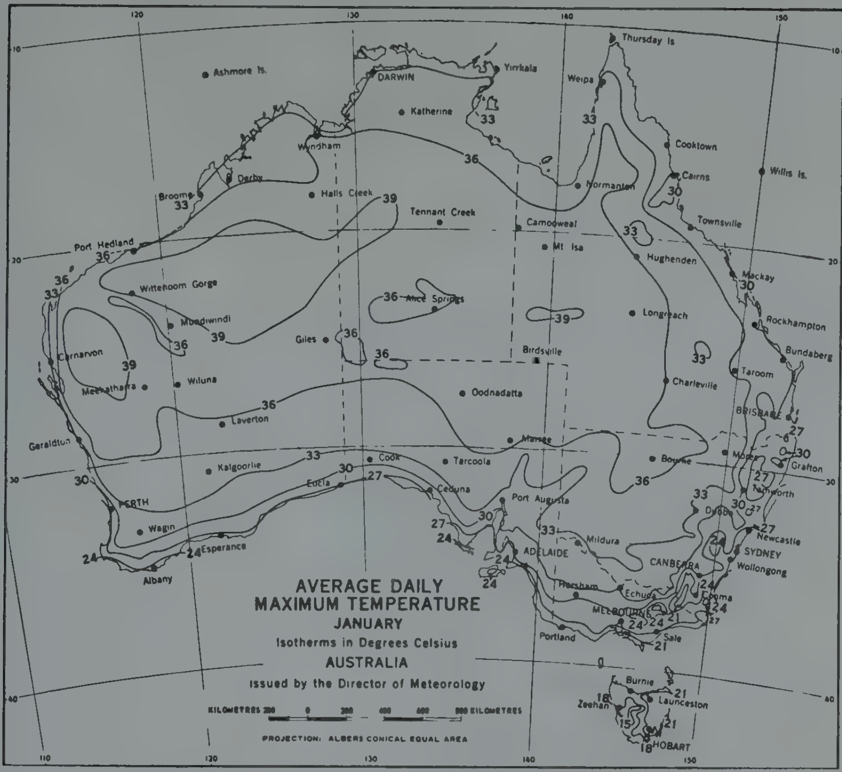
The next table shows extreme minimum temperatures recorded at specified stations, including the lowest recorded in each State.

EXTREME MINIMUM TEMPERATURES

(All years to July 1982)

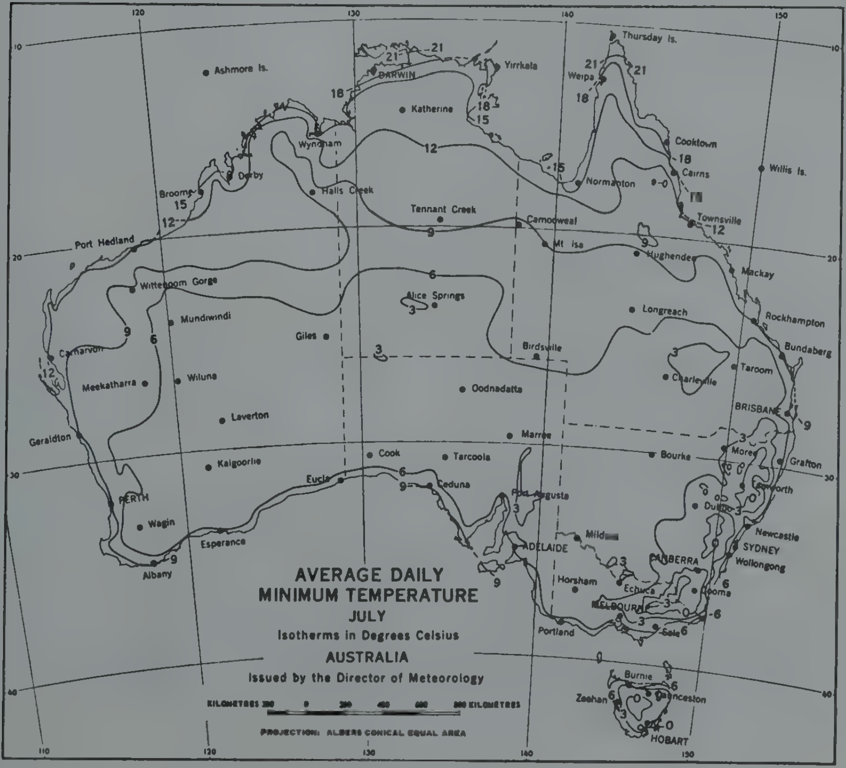
Station	*°C*	*Date*	*Station*	*°C*	*Date*
New South Wales—			Western Australia—		
Charlotte Pass	–22.2	14.7.1945	Booylgoo	–6.7	12.7.1969
		22.8.1947	Wandering	–5.7	1.6.1964
Kiandra	–20.6	2.8.1929	Tasmania—		
Kosciusko Hotel	–14.4	3.7.1929	Shannon	–13.0	30.6.1983
		6.7.1939	Butlers Gorge	–13.0	30.6.1983
Cooma	–11.2	13.7.1898	Tarraleah	–13.0	30.6.1983
Victoria—			Northern Territory—		
Mount Hotham	–12.8	13.8.1947	Alice Springs	–7.5	12.7.1976
Omeo	–11.7	15.6.1965	Tempe Downs	–6.9	24.7.1971
Bairnsdale	–7.2	16.8.1896	Australian Capital Territory—		
Queensland—			Canberra	–10.0	19.7.1924
Stanthorpe	–11.0	4.7.1895			11.7.1971
Mitchell	–9.4	15.8.1979			
Nanango	–9.3	16.7.1918			
South Australia—					
Yongala	–8.2	20.7.1976			
Yunta	–7.7	19.7.1976			

Heat waves. Periods with a number of successive days having a temperature higher than 40°C are relatively common in summer over parts of Australia. With the exception of the north west coast of Western Australia, however, most coastal areas rarely experience more than three successive days of such conditions. The frequency increases inland, and periods of up to ten successive days have been recorded at many inland stations. This figure increases in western Queensland and north western Western Australia to more than twenty days in places. The central part of the Northern Territory and the Marble Bar-Nullagine area of Western Australia have recorded the most prolonged heat waves. Marble Bar is the only station in the world where temperatures of more than 37.8°C (100°F) have been recorded on as many as 161 consecutive days (30 October 1923–7 April 1924).



AVERAGE DAILY MAXIMUM TEMPERATURE
JANUARY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology

Thursday Is
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Derby
Cairns
Willis Is.
Broome
Halls Creek
Normanton
Tennant Creek
Townsville
Port Hedland
Camooweal
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Mundiwindi
Longreach
Rockhampton
Giles
Carnarvon
Birdsville
Bundaberg
Meekatharra
Wiluna
Taroom
Charleville
Oodnadatta
BRISBANE
Laverton
Geraldton
Marree
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Bourke
Eucla
Ceduna
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Launceston
Zeehan
HOBART
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
110
120
130
140
150
10
20
30
40
39
36
33
30
27
24
21
18
15



AVERAGE DAILY MINIMUM TEMPERATURE
JULY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology

Thursday Is.
Ashmore Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is.
Derby
Broome
Halls Creek
Normanton
Tennant Creek
Townsville
Port Hedland
Camooweal
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Carnarvon
Birdsville
Bundaberg
Taroom
Meekatharra
Wiluna
Charleville
Oodnadatta
BRISBANE
Laverton
Geraldton
Marree
Moree
Bourke
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Newcastle
Esperance
Mildura
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Sale
Portland
Burnie
Launceston
Zeehan
HOBART
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
110
120
130
140
150
10
20
30
40
21
18
15
12
9
6
3
0
-3
-6

PLATES 8 and 9

Heat waves are experienced in the coastal areas from time to time. During 11–14 January 1939, for example, a severe heat wave affected south eastern Australia: Adelaide had a record of 47.6°C on the 12th, Melbourne a record of 45.6°C on the 13th and Sydney a record of 45.3°C on the 14th.

The Kimberley district of Western Australia is the consistently hottest part of Australia in terms of annual average maximum temperature. Wyndham, for example, has an annual average maximum of 35.5°C.

Frost

For details *see* Year Book No. 63, pages 23 to 25.

Humidity

Australia is a dry continent in terms of the water vapour content or humidity of the air. Humidity is measured at Bureau of Meteorology observational stations by a pair of dry and wet bulb thermometers mounted in a standard instrument screen. These measurements enable moisture content to be expressed by a number of parameters, two of which are vapour pressure and relative humidity.

Vapour pressure is an actual quantitative measure whereas relative humidity is a ratio (expressed as a percentage). Both of these are included here showing their respective applications but more detailed treatment is given to relative humidity because of its wider usage.

Vapour pressure. Vapour pressure is defined as the pressure exerted by the water vapour in the air; and it is a measure of the actual amount of water vapour present. The amount of water vapour does not normally vary greatly during the day, although afternoon sea breezes at coastal stations may bring in moisture to increase the vapour pressure temporarily by amounts up to 5 millibars. The 9 a.m. vapour pressure may be taken to approximate the mean value for the day.

The annual averages range from 9.5 millibars at Hobart to 27.9 millibars at Thursday Island. At the high level station Kiandra (1,400 metres) the annual average is 7.9 millibars. Excluding Kiandra, monthly averages range from 6.7 millibars at inland stations in winter months to 30.9 millibars at Broome in February.

Vapour pressure together with corresponding air temperature have been used to measure climatic discomfort affecting human beings. Comfortable conditions are generally accepted as being within the vapour pressure range 7–17 millibars with respective air temperatures in the range 15–30°C. Above these limits heat discomfort increases and below them cold discomfort increases. The wet bulb temperature may also be used as a simple measure of heat discomfort when this temperature rises above 20°C.

Relative humidity. Relative humidity at a given temperature is the ratio (expressed as a percentage) of actual vapour pressure to the saturated vapour pressure at that temperature. As a single measure of human discomfort relative humidity is of limited value because it must be related to the temperature at the time.

Since the temperature at 9 a.m. approximates the mean temperature for the day (24 hours), the relative humidity at 9 a.m. may be taken as an estimate of the mean relative humidity for the day. Relative humidity at 3 p.m. occurs around the warmest part of the day on the average and is representative of the lowest daily values. Relative humidity on the average is at a maximum in the early morning when air temperature is minimal.

The table on page 21 contains average relative humidity at 9 a.m. for the year and for each month. Average annual figures on the table range from 34 per cent at Mundiwindi and Marble Bar to 79 per cent at Thursday Island illustrating the range of average relative humidity over Australia. Adelaide has the lowest value for a capital city with an annual average of 60 per cent, compared with Melbourne 69 per cent and Darwin 73 per cent.

Monthly averages shown in the table range from 23 per cent at Mundiwindi in November to 89 per cent at Katanning in June and July. At Alice Springs monthly averages vary from 30 per cent in November to 66 per cent in the winter month of June when low temperatures have the effect of raising relative humidity over the interior. Broome varies from 46 per cent in August to 73 per cent in February, which is a marked seasonal change for a coastal station.

The pattern of variation of relative humidity differs from that of vapour pressure particularly in southern Australia. This is due to the difference in variation of the two parameters with temperature. If the amount of moisture in the air remains constant, vapour pressure decreases slightly with falling temperatures, whereas relative humidity increases. Perth for example has an average 9 a.m. vapour pressure of 14.7 millibars in January and 11.0 in August; and the respective average relative humidity figures (51 and 74 per cent respectively) show a reverse change.

AVERAGE RELATIVE HUMIDITY AT 9 A.M.

(per cent)

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Adelaide	1955–78	49	51	54	59	69	73	75	71	63	56	53	51	60
Alice Springs	1940–78	36	41	42	46	57	66	61	50	36	33	30	31	44
Armidale	1957–78	67	71	72	73	78	80	75	72	64	59	58	59	69
Brisbane	1951–78	67	68	70	69	68	69	66	62	60	59	58	60	64
Broome	1939–78	70	73	69	55	51	50	49	46	48	54	58	64	57
Canberra	1939–78	60	65	68	74	81	84	84	78	72	65	60	56	70
Carnarvon	1945–78	60	60	58	57	60	70	70	63	54	52	55	58	59
Ceduna	1939–78	55	59	62	68	77	82	81	77	66	56	54	54	65
Charleville	1942–78	49	54	54	54	63	71	66	56	45	41	37	41	52
Cloncurry	1939–75	53	61	53	45	47	50	45	37	31	30	32	41	43
Darwin	1941–78	82	84	83	76	67	63	64	68	71	70	73	77	73
Esperance	1957–69	62	67	66	71	76	81	82	76	71	65	62	62	70
Halls Creek	1944–78	51	55	44	33	36	35	31	25	22	25	30	40	35
Hobart	1944–78	58	62	65	69	75	78	78	73	65	62	60	55	67
Kalgoorlie	1939–78	48	54	56	62	70	76	75	68	56	50	46	45	58
Katanning	1957–78	59	65	69	77	85	89	89	87	82	70	60	57	74
Kiandra	1957–74	67	68	73	75	83	86	86	85	72	67	63	65	74
Marble Bar	1957–78	47	48	41	33	35	41	37	30	24	24	24	34	34
Melbourne	1955–78	61	65	67	71	77	81	80	75	69	64	62	61	69
Mildura	1946–78	50	56	61	70	82	88	86	79	68	59	53	49	66
Mundiwindi	1957–78	32	37	35	37	41	50	47	39	28	25	23	25	34
Perth	1942–78	51	53	57	65	72	78	78	74	68	50	54	51	63
Sydney	1955–78	68	71	72	70	70	73	68	66	63	61	62	65	67
Thursday Island	1950–78	83	85	85	82	81	80	79	78	75	73	73	77	79
Townsville	1939–78	73	76	74	69	67	66	66	63	60	61	64	66	67

For further details on humidity, *see* Year Book No. 68.

Global radiation

For details *see* Year Book No. 63, pages 25 and 26.

Sunshine, cloud and fog

Sunshine. Sunshine as treated here refers to bright or direct sunshine. Australia receives relatively large amounts of sunshine although seasonal cloud formations have a notable effect on its spatial and temporal distribution. Cloud cover reduces both incoming and outgoing radiation and thus affects sunshine, air temperature and other climatic elements at the earth's surface.

Most of the continent receives more than 3,000 hours of sunshine a year, or nearly 70 per cent of the total possible. In central Australia and the mid-west coast of Western Australia totals slightly in excess of 3,500 hours occur. Totals of less than 1,750 hours occur on the west coast and highlands of Tasmania; this amount is only 40 per cent of the total possible per year (about 4,380 hours).

In southern Australia generally the duration of sunshine is greatest about December when the sun is at its highest elevation and lowest in June when the sun is lowest. In northern Australia sunshine is generally greatest about August-October prior to the wet season and least about January-March during the wet season.

For further information on sunshine *see* Year Book No. 68.

Cloud. Seasonal changes in cloudiness vary with the distribution of rainfall. In the southern parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer months. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. Particularly strong seasonal variability of cloud cover exists in northern Australia where skies are clouded during the summer wet season and mainly cloudless during the winter dry season. Cloud coverage is greater near coasts and on the windward slopes of the eastern uplands of Australia and less over the dry interior.

Darwin has the least average daily coverage of 3.2 eighths and Hobart the highest daily average of 5.0 eighths. The highest daily average for any month occurs at Darwin (5.9 eighths for January) and the lowest daily average is also at Darwin (1.1 eighths for August).

Fog. The formation of fog depends on the occurrance of favourable meteorological elements—mainly temperature, humidity, wind and cloud cover. The nature of the local terrain is important for the development of fog and there is a tendency for this phenomenon to persist in valleys and hollows. The incidence of fog may vary significantly over distances as short as one kilometre.

Fog in Australia tends to be greater in the south than the north, parts of the east coastal areas are relatively fog prone even in the tropics. Incidence is much greater in the colder months, particularly in the eastern uplands. Fog may persist during the day but rarely until the afternoon over the interior. The highest fog incidence at a capital city is at Canberra which has an average of 46 days per year on which fog occurs, 28 of which are in the period May to August. Brisbane averages 22 days of fog per year, 17 of which occur between April and September. Darwin averages only 3 days per year, June to September.

Winds

The mid-latitude anticyclones are the chief determinants of Australia's two main prevailing wind streams. In relation to the west-east axes of the anticyclones these streams are easterly to the north and westerly to the south. The cycles of development, motion and decay of low pressure systems to the north and south of the anticyclones result in diversity of wind flow patterns. Wind variations are greatest around the coasts where diurnal land and sea breeze effects are important.

Wind roses for the months of January and July at 9 a.m. and 3 p.m. at selected stations are shown in Plates 10–13 inclusive, extracted from *Climatic Atlas of Australia, Map Set 8*, 1979. The wind roses show the percentage frequency of direction (eight points of compass) and speed ranges of winds.

Orography affects the prevailing wind pattern in various ways such as the channelling of winds through valleys, deflection by mountains and cold air drainage from highland areas. An example of this channelling is the high frequency of northwest winds at Hobart caused by the northwest south-east orientation of the Derwent River Valley.

Perth is the windiest capital with an average wind speed of 15.6 kilometres per hour; Canberra is the least windy with an average speed of 5.8 kilometres per hour.

The highest wind speeds and wind gusts recorded in Australia have been associated with tropical cyclones. The highest recorded gust was 246 kilometres per hour during a cyclone at Onslow, Western Australia on 19 February 1975 and gusts reaching 200 kilometres per hour have been recorded on several occasions in northern Australia with cyclone visitations. The highest gusts recorded at Australian capitals were 217 kilometres per hour at Darwin and 156 kilometres per hour at Perth.

Evaporation

For details *see* Year Book No. 62.

Floods

Widespread flood rainfall may occur anywhere in Australia but it has a higher incidence in the north and in the eastern coastal areas. It is most economically damaging along the shorter streams flowing from the eastern uplands eastward to the seaboard of Queensland and New South Wales. These flood rains are notably destructive in the more densely populated coastal river valleys of New South Wales; the Tweed, Richmond, Clarence, Macleay, Hunter and Nepean-Hawkesbury; all of which experience relatively frequent flooding. Although chiefly summer rains, they may occur in any season.

The great Fitzroy and Burdekin river basins of Queensland receive flood rains during the summer wet season. Much of the run-off due to heavy rain in north Queensland west of the eastern uplands flows southward through the normally dry channels of the network of rivers draining the interior lowlands into Lake Eyre. This widespread rain may cause floods over an extensive area, but it soon seeps away or evaporates, occasionally reaching the lake in quantity. The Condamine and other northern tributaries of the Darling also carry large volumes of water from flood rains south through western New South Wales to the Murray and flooding occurs along their courses at times.

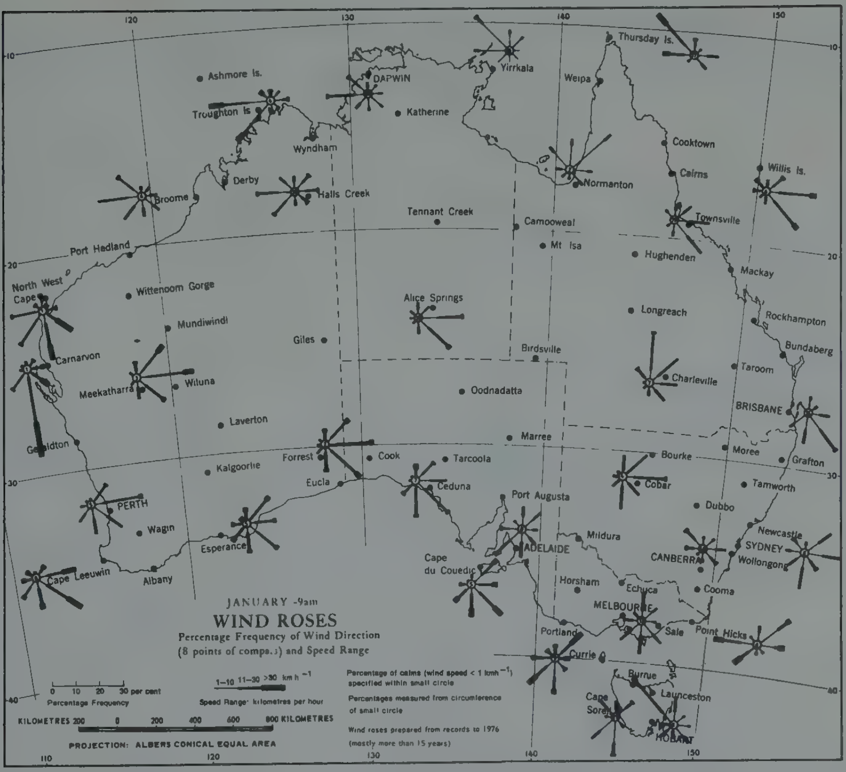
Flood rains occur at irregular intervals in the Murray-Murrumbidgee system of New South Wales and Victoria, the coastal streams of southern Victoria and the north coast streams of Tasmania.

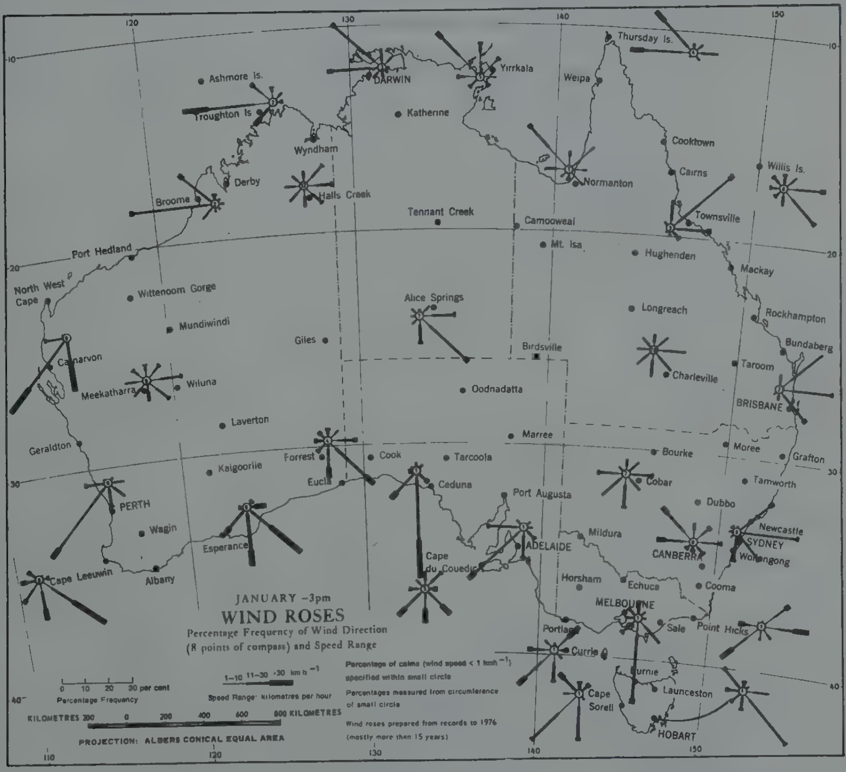
Droughts

Drought, in general terms, refers to an acute water shortage. This is normally due to rainfall deficiency but with other parameters contributing to the actual water availability. The best single measure of water availability in Australia is rainfall; although parameters such as evaporation and soil moisture are significant or even dominant in some situations.

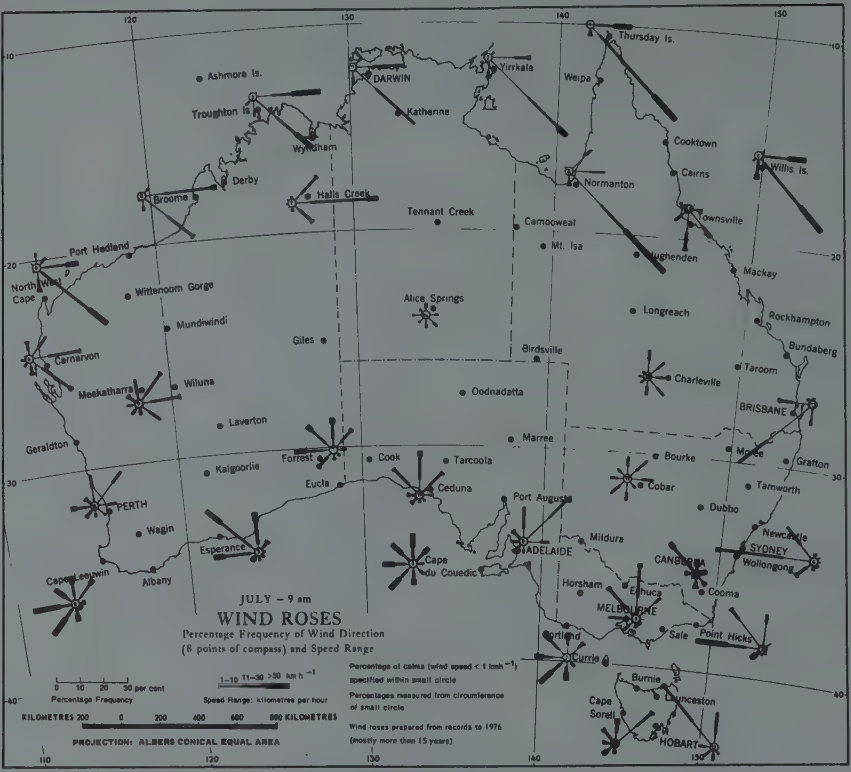
The Bureau of Meteorology publication *Droughts in Australia*, Bulletin No. 43 lists seven major widespread droughts which occurred in the period 1830 to 1955. These covered the following periods; 1864-68, 1880-86, 1888, 1895-1903, 1911-16, 1918-20 and 1939-45. The publication also lists five other droughts of lesser intensity but affecting wide areas, in this period.

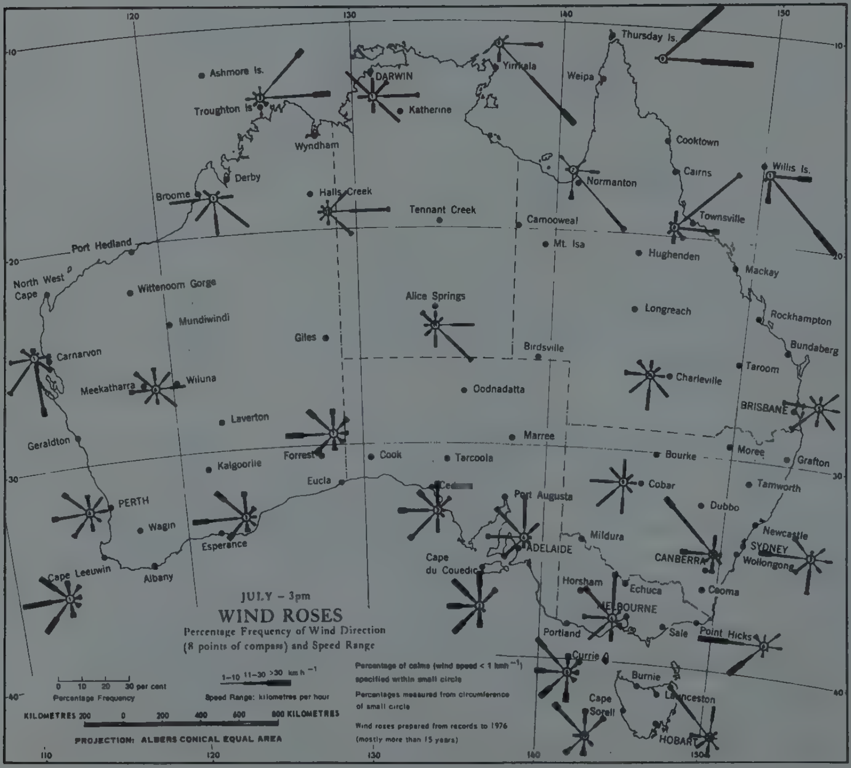
A review of droughts in Australia to 1968 is included in Year Book Australia No. 54, 1968. That review contained a description of the severe drought of 1958-68 making use of the analysis of rainfall deciles.


JANUARY -9am
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 >30 km h⁻¹
Speed Range: kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
110
120
130
140
150
10
20
30
40
Ashmore Is.
Troughton Is
DARWIN
Katherine
Yirrkala
Thursday Is.
Weipa
Cooktown
Cairns
Willis Is.
Normanton
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Townsville
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Rockhampton
Bundaberg
Giles
Birdsville
Carnarvon
Meekatharra
Wiluna
Charleville
Taroom
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
Port Augusta
PERTH
Dubbo
Wagin
Esperance
Mildura
ADELAIDE
Newcastle
SYDNEY
Wollongong
CANBERRA
Cape du Couedic
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART


JANUARY -3pm
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 >30 km h⁻¹
Speed Range: kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
110
120
130
140
150
10
20
30
40
Ashmore Is.
Troughton Is
DARWIN
Katherine
Yirrkala
Thursday Is.
Weipa
Cooktown
Cairns
Willis Is.
Normanton
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt. Isa
Townsville
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Rockhampton
Bundaberg
Giles
Birdsville
Carnarvon
Meekatharra
Wiluna
Charleville
Taroom
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
Port Augusta
PERTH
Dubbo
Wagin
Esperance
Mildura
ADELAIDE
Newcastle
SYDNEY
Wollongong
CANBERRA
Cape du Couedic
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART

PLATES 10 and 11


JULY – 9 am
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 >30 km h⁻¹
Speed Range: kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
110
120
130
140
150
10
20
30
40
Thursday Is.
Ashmore Is.
Troughton Is.
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is.
Derby
Halls Creek
Normanton
Broome
Tennant Creek
Camooweal
Townsville
Mt. Isa
Port Hedland
Hughenden
North West Cape
Wittenoom Gorge
Mackay
Alice Springs
Longreach
Mundiwindi
Rockhampton
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Cobar
Tamworth
Ceduna
Port Augusta
PERTH
Dubbo
Wagin
Mildura
Newcastle
Esperance
SYDNEY
ADELAIDE
CANBERRA
Wollongong
Cape du Couedic
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Cape Sorell
Launceston
HOBART


JULY – 3pm
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 >30 km h⁻¹
Speed Range: kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
110
120
130
140
150
10
20
30
40
Thursday Is.
Ashmore Is.
DARWIN
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Willis Is.
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Halls Creek
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Camooweal
Mt. Isa
Port Hedland
Hughenden
North West Cape
Wittenoom Gorge
Mackay
Alice Springs
Longreach
Mundiwindi
Rockhampton
Giles
Birdsville
Bundaberg
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Taroom
Charleville
Meekatharra
Wiluna
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BRISBANE
Laverton
Marree
Geraldton
Bourke
Moree
Forrest
Cook
Tarcoola
Grafton
Kalgoorlie
Eucla
Cobar
Tamworth
Port Augusta
PERTH
Dubbo
Wagin
ADELAIDE
Mildura
Newcastle
Esperance
SYDNEY
CANBERRA
Wollongong
Cape du Couedic
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Cape Sorell
Launceston
HOBART

PLATES 12 and 13

Since 1968, there have been a number of severe droughts defined by rainfall deficiencies based on decile analyses (see the Bureau's *Drought Review Australia* series, 1968 to date). The most notable of these were the 1970-73 drought over the northeastern goldfields and adjacent areas of Western Australia, the 1975-76 drought over a large part of southeastern Australia and the 1982 drought over eastern Australia.

Climatic discomfort

In Australia climatic discomfort is significant in most areas. During the summer half of the year (November–April) prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical stress. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe for relatively short periods. However, cold stress does not cause prolonged physical hardship in Australia at altitudes lower than 1,000 metres, that is, over more than 99 per cent of the continent.

The climatic variables determining physical discomfort are primarily air temperature, vapour pressure and wind. The complete assessment of physical discomfort also requires analyses of such parameters as thermal conductivity of clothing, vapour pressure at the skin and the metabolic heat rate arising from activity of the human body. The cooling system of the human body depends on evaporation of moisture to keep body temperature from rising to lethal levels as air temperature rises. Defining criteria of discomfort is difficult because personal reactions to the weather differ greatly according to a number of variables including health, age, clothing, occupation and acclimatisation. However, climatic strain has been measured experimentally and discomfort indexes based on the average response of subjects under specified conditions have been derived.

Effective Temperature. The effective temperature with respect to any environmental combination of temperature, humidity and wind is defined as the temperature of still, saturated air in which a normally clothed sedentary worker would feel the same level of comfort or discomfort.

Environment studies carried out at the research laboratories of the American Society of Heating, Refrigerating and Air Conditioning Engineers established values of effective temperature corresponding to various combinations of temperature, humidity and air movement. The results were published as a series of research reports commencing in 1923, and have been widely used to measure climatic discomfort (*see* 1960 report of the Society).

Normally clothed sedentary workers are most comfortable within a range of effective temperatures between 15°C and 27°C. At effective temperatures greater than 27°C, the majority of people feel heat discomfort and when less than 15°C they feel cold discomfort.

The table below contains the annual average frequency of effective temperature at 3 p.m. within specified limits at selected stations. The figures provide comparisons of daily occurrence of afternoon discomfort for the given environmental conditions.

CLIMATIC DISCOMFORT: EFFECTIVE TEMPERATURE

		Average days per year where effective temperature is:		
Station	*Period of record*	*Less than 15°C*	*15–27°C*	*Greater than 27°C*
Adelaide	1955–72	128	234	3
Albury	1962–71	141	220	4
Alice Springs	1955–67	39	300	26
Brisbane	1951–70	6	356	3
Broome	1941–71	0	225	140
Canberra	1940–72	172	192	1
Carnarvon	1945–72	1	345	19
Ceduna	1955–71	77	279	9
Charleville	1942–72	28	316	21
Cloncurry	1940–72	1	268	96
Darwin	1955–69	0	225	140
Hobart	1944–67	239	126	0
Kalgoorlie	1940–72	66	281	18
Marble Bar	1957–71	0	220	145
Melbourne	1955–71	155	207	3
Mildura	1946–72	95	258	12
Perth	1944–71	57	302	6
Rockhampton	1940–72	2	337	26
Sydney	1955–72	69	295	1
Townsville	1941–69	0	333	32
Woomera	1954–72	73	279	13

Heat discomfort, on this index, is greatest in the north-west, where Marble Bar averages 145 days of high heat discomfort annually, and least in the south-east, where Hobart has only one day every five years. Cold discomfort is least in the north, where Townsville has one day of cold discomfort in ten years, and the greatest in the south-east, where Hobart has 239 days annually when the effective temperature is sufficiently low to cause discomfort. By the suitable choice of clothing discomfort can be decreased significantly on cold days. On cold days also, workers tend to take opportunities to move around, thus increasing metabolic heat rates.

Effective temperature is a useful index but its application is limited because available criteria relate only to normally clothed indoor workers in sedentary occupations. Futhermore, at lower air temperatures the effective temperature gives excessive weight to humidity.

For further details on climatic discomfort *see* Year Book No. 68.

Climatic data for capital cities

See Year Book No. 67 pages 58 to 65.

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CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under the Australian Constitution the legislative power of the Commonwealth of Australia is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General. In each Australian State there is a State Governor, who is the representative of the Sovereign for the State. The Governor has such powers within the State as are conferred upon him by the Letters Patent constituting his office, and he exercises these powers in accordance with instructions issued to him by the Sovereign, detailing the manner in which his duties are to be fulfilled.

In the Commonwealth Parliament the Upper House is known as the Senate, and in the bicameral State Parliaments as the Legislative Council. The Legislature in each State was bicameral until 1922 when the Queensland Parliament became unicameral upon the abolition of the Upper House. In the Commonwealth Parliament the Lower House is known as the House of Representatives; in the State Parliaments of New South Wales, Victoria, Queensland and Western Australia as the Legislative Assembly; and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The extent of the legislative powers of each of the seven Parliaments is defined by the Australian and State Constitutions respectively. In those States that have a bicameral legislature, the Legislative Assembly or House of Assembly, as the case may be, is the larger House.

The members of the Parliaments of each State are elected by the people, the franchise extending to Australian citizens who are at least 18 years of age and possess certain residential qualifications. For the Commonwealth Parliament the qualifications for the franchise are identical for both Houses, extending to Australian citizens and British subjects who are on the Commonwealth roll and who are not less than 18 years of age.

The Sovereign

On 7 February 1952, the then Governor-General of the Commonwealth of Australia, acting with advice of members of the Federal Executive Council, proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty took place in Westminster Abbey on 2 June 1953. By the *Royal Style and Titles Act* 1973, which Her Majesty assented to in Canberra on 19 October 1973, the Commonwealth Parliament assented to the adoption by Her Majesty, for use in relation to Australia and its Territories, of the Style and Titles set out in the Schedule to the Act. On the same day, also in Canberra, Her Majesty issued a Proclamation, under the Great Seal of Australia, appointing and declaring that Her Majesty's Style and Titles should henceforth be, in relation to Australia and its Territories, 'Elizabeth the Second, by the Grace of God Queen of Australia and Her other Realms and Territories, Head of the Commonwealth'.

The Governor-General

Powers and functions. Under the Australian Constitution the Governor-General exercises the executive power of the Commonwealth, and certain other powers and functions conferred by the Constitution which include, among others, the powers to appoint times for holding the sessions of the Parliament, to prorogue Parliament, and to dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament; to choose and summon Executive Councillors, who hold office during his pleasure; and to appoint Ministers of State for the Commonwealth of Australia. In addition, the command-in-chief of the Defence Force of the Commonwealth of Australia is vested in the Governor-General as the Queen's representative.

Many Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the Acts. The Governor-General may also be authorised by statute to issue proclamations—for example, to declare an Act in force. He has been given power by statute to legislate for certain of the Australian Territories. Under the conventions of responsible government obtaining in British Commonwealth countries, the Governor-General's functions are exercised generally on the advice of Ministers of State.

The present Governor-General is His Excellency the Right Honourable Sir Ninian Martin Stephen, A.K., G.C.M.G., G.C.V.O., K.B.E., who has held office since 29 July 1982.

Holders of office. The names of those persons who have held the office of Governor-General since the inception of the Commonwealth of Australia are listed in Year Book No. 61.

Administrators. In addition to the holders of the office of Governor-General, certain persons have, from time to time, been appointed by the Queen to administer the Government of the Commonwealth of Australia. These persons are appointed in the event of the death, incapacity, removal or absence from Australia of the Governor-General. The names of those persons who have acted as Administrator are also listed in Year Book No. 61 and earlier Year Books.

Governors of the States

Powers and functions. The Queen is represented in each of the Australian States by a Governor, the office having been constituted by Letters Patent issued under the Great Seal of the United Kingdom on various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their commissions of appointment and the Governor's Instructions given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions by State Constitutions and other Imperial Acts, as well as under the Acts of the Parliaments of the States.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those Bills reserved for the Royal Assent. The latter Bills include certain classes of Bills that are regulated by the State's Constitution and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown in right of the State. In the performance of his functions generally, particularly those conferred by statute, the Governor of a State acts on the advice of Ministers of State for the State.

Holders of office. The names of the present (September 1984) State Governors are as follows:

New South Wales—His Excellency AIR MARSHAL SIR JAMES ANTHONY ROWLAND, K.B.E., D.F.C., A.F.C.

Victoria—His Excellency REAR ADMIRAL SIR BRIAN STEWART MURRAY, K.C.M.G., A.O., K.St.J.

Queensland—His Excellency COMMODORE SIR JAMES MAXWELL RAMSAY, K.C.M.G., K.C.V.O., C.B.E., D.S.C.

Western Australia—His Excellency PROFESSOR GORDON STANLEY RIED.

South Australia—His Excellency LT-GEN. SIR DONALD BEAUMONT DUNSTAN, K.B.E., C.B.

Tasmania—His Excellency SIR JAMES PLIMSOLL, A.C., C.B.E.

Government House, Canberra.

Australian Information Service

Commonwealth Government Ministries

Names and tenure of office, 1901 to 1984. The following list shows the name of each Commonwealth Government Ministry to hold office since 1 January 1901 and the limits of its term of office.

COMMONWEALTH GOVERNMENT MINISTRIES, 1901 TO DECEMBER 1984

(i) Barton Ministry, 1 January 1901 to 24 September 1903.
(ii) Deakin Ministry, 24 September 1903 to 27 April 1904.
(iii) Watson Ministry, 27 April 1904 to 17 August 1904.
(iv) Reid-McLean Ministry, 18 August 1904 to 5 July 1905.
(v) Deakin Ministry, 5 July 1905 to 13 November 1908.
(vi) Fisher Ministry, 13 November 1908 to 2 June 1909.
(vii) Deakin Ministry, 2 June 1909 to 29 April 1910.
(viii) Fisher Ministry, 29 April 1910 to 24 June 1913.
(ix) Cook Ministry, 24 June 1913 to 17 September 1914.
(x) Fisher Ministry, 17 September 1914 to 27 October 1915.
(xi) Hughes Ministry, 27 October 1915 to 14 November 1916.
(xii) Hughes Ministry, 14 November 1916 to 17 February 1917.
(xiii) Hughes Ministry; 17 February 1917 to 8 January 1918.
(xiv) Hughes Ministry, 10 January 1918 to 9 February 1923.
(xv) Bruce-Page Ministry, 9 February 1923 to 22 October 1929.
(xvi) Scullin Ministry, 22 October 1929 to 6 January 1932.
(xvii) Lyons Ministry, 6 January 1932 to 7 November 1938.
(xviii) Lyons Ministry, 7 November 1938 to 7 April 1939.
(xix) Page Ministry, 7 April 1939 to 26 April 1939.
(xx) Menzies Ministry, 26 April 1939 to 14 March 1940.
(xxi) Menzies Ministry, 14 March 1940 to 28 October 1940.
(xxii) Menzies Ministry, 28 October 1940 to 29 August 1941.
(xxiii) Fadden Ministry, 29 August 1941 to 7 October 1941.
(xxiv) Curtin Ministry, 7 October 1941 to 21 September 1943.
(xxv) Curtin Ministry, 21 September 1943 to 6 July 1945.
(xxvi) Forde Ministry, 6 July 1945 to 13 July 1945.
(xxvii) Chifley Ministry, 13 July 1945 to 1 November 1946.
(xxviii) Chifley Ministry, 1 November 1946 to 19 December 1949.
(xxix) Menzies Ministry, 19 December 1949 to 11 May 1951.
(xxx) Menzies Ministry, 11 May 1951 to 11 January 1956.
(xxxi) Menzies Ministry, 11 January 1956 to 10 December 1958.
(xxxii) Menzies Ministry, 10 December 1958 to 18 December 1963.
(xxxiii) Menzies Ministry, 18 December 1963 to 26 January 1966.
(xxxiv) Holt Ministry, 26 January 1966 to 14 December 1966.
(xxxv) Holt Ministry, 14 December 1966 to 19 December 1967.
(xxxvi) McEwen Ministry, 19 December 1967 to 10 January 1968.
(xxxvii) Gorton Ministry, 10 January 1968 to 28 February 1968.
(xxxviii) Gorton Ministry, 28 February 1968 to 12 November 1969.
(xxxix) Gorton Ministry, 12 November 1969 to 10 March 1971.
(xl) McMahon Ministry, 10 March 1971 to 5 December 1972.
(xli) Whitlam Ministry, 5 December 1972 to 19 December 1972.
(xlii) Whitlam Ministry, 19 December 1972 to 11 November 1975.
(xliii) Fraser Ministry, 11 November 1975 to 22 December 1975.
(xliv) Fraser Ministry, 22 December 1975 to 20 December 1977.
(xlv) Fraser Ministry, 20 December 1977 to 3 November 1980.
(xlvi) Fraser Ministry, 3 November 1980 to 11 March 1983.
(xlvii) Hawke Ministry, 11 March 1983 to 1 December 1984.
(xlviii) Hawke Ministry, 1 December 1984.

Names of Members of each Ministry to 1 September 1984. In Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9 February 1923 to 22 October 1929), together with the names of the successive holders of portfolios therein. Year Book No. 39 contains a list which covers the period between 9 February 1923, the date on which the Bruce-Page Ministry assumed power, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period. The names of members of subsequent Ministries are listed in issues of the Year Book from No. 39 to No. 61 inclusive and in successive issues from No. 64.

This issue shows particulars of the Second Hawke Ministry (at December 1984).

COMMONWEALTH AND STATE LEADERS OF THE GOVERNMENT, DECEMBER 1984

Commonwealth—The Hon. R. J. L. Hawke, A.C., M.P. (Vic.) (A.L.P.)
New South Wales—The Hon. N. K. Wran, Q.C., M.L.A. (A.L.P.)
Victoria—The Hon. J. Cain, M.L.A. (A.L.P.)
Queensland—The Hon. Sir Johannes Bjelke-Petersen, K.C.M.G., M.L.A. (N.P.)
Western Australia—The Hon. B. T. Burke, M.L.A. (A.L.P.)
South Australia—The Hon. J. C. Bannon, M.H.A. (A.L.P.)
Tasmania—The Hon. R. T. Gray, M.H.A. (L.P.)
Northern Territory—The Hon. I. L. Tuxworth, M.L.A. (C.L.P.)

COMMONWEALTH GOVERNMENT

Second Hawke Ministry

		Representation in other Chamber
*Prime Minister	The Hon. R. J. L. Hawke, A.C., M.P.	Senator Button
*Deputy Prime Minister, Attorney-General, Minister Assisting the Prime Minister for Commonwealth—State Relations and Vice-President of the Executive Council	The Hon. Lionel Bowen, M.P.	Senator Evans
*Leader of the Government in the Senate and Minister for Industry and Commerce	Senator the Hon. John Button	**Mr Dawkins **Mr Jones
*Deputy Leader of the Government and Manager of Government Business in the Senate and Minister for Community Services	Senator the Hon. Don Grimes	Mr Howe
*Minister for Employment and Industrial Relations and Minister Assisting the Prime Minister for Public Service Industrial Matters	The Hon. Ralph Willis, M.P.	Senator Walsh
*Treasurer	The Hon. P. J. Keating, M.P.	Senator Walsh
*Special Minister of State and Leader of the House	The Hon. Michael J. Young, M.P.	Senator Evans
*Minister for Finance and Minister Assisting the Prime Minister for Public Service Matters	Senator the Hon. Peter Walsh	† Mr Hurford † Mr Willis
*Minister for Foreign Affairs	The Hon. Bill Hayden, M.P.	Senator Evans
*Minister for Education and Minister Assisting the Prime Minister on the Status of Women	Senator the Hon. Susan Ryan	Mr Dawkins
*Minister for Resources and Energy, Minister Assisting the Prime Minister and Minister Assisting the Minister for Foreign Affairs	Senator the Hon. Gareth Evans, Q.C.	Mr Jones
*Minister for Trade and Minister Assisting the Prime Minister for Youth Affairs	The Hon. J. S. Dawkins, M.P.	Senator Button
*Minister for Primary Industry	The Hon. John Kerin, M.P.	Senator Walsh
*Minister for Housing and Construction	The Hon. Stewart West, M.P.	Senator Ryan

*Minister for Defence	THE HON. KIM C. BEAZLEY, M.P.	SENATOR EVANS
*Minister for Immigration and Ethnic Affairs and Minister Assisting the Treasurer	THE HON. CHRIS HURFORD, M.P.	SENATOR GRIMES
*Minister for Social Security	THE HON. BRIAN HOWE, M.P.	SENATOR GRIMES
Minister for Transport and Minister for Aviation	THE HON. PETER MORRIS, M.P.	SENATOR GIETZELT
Minister for Sport, Recreation and Tourism and Minister Assisting the Minister for Defence	THE HON. JOHN BROWN, M.P.	SENATOR RYAN
Minister for Health	THE HON. NEAL BLEWETT, M.P.	SENATOR GRIMES
Minister for Science and Minister Assisting the Minister for Industry, Technology and Commerce	THE HON. BARRY O. JONES, M.P.	SENATOR BUTTON
Minister for Territories	THE HON. GORDON SCHOLES, M.P.	SENATOR GIETZELT
Minister for Communications and Minister Assisting the Minister for Defence	THE HON. MICHAEL DUFFY, M.P.	SENATOR WALSH
Minister for Arts, Heritage and Environment and Minister Assisting the Prime Minister for the Bicentennial	THE HON. BARRY COHEN, M.P.	SENATOR RYAN
Minister for Aboriginal Affairs	THE HON. A. C. HOLDING, M.P.	SENATOR RYAN
Minister for Veterans' Affairs	SENATOR THE HON. A. T. GIETZELT	MR HOLDING
Minister for Local Government and Administrative Services	THE HON. TOM UREN, M.P.	SENATOR GIETZELT

* Minister in the Cabinet

** Mr Dawkins to represent the Minister for Industry, Technology and Commerce in Industry and Commerce matters, and Mr Jones in Technology matters.

† Mr Hurford to represent the Minister for Finance, and Mr Willis to represent the Minister Assisting the Prime Minister for Public Service Matters.

*Minister in the Cabinet.

COMMONWEALTH AND STATE LEADERS OF THE OPPOSITION, DECEMBER 1984

The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in September 1984.

Commonwealth—The Hon. A. S. Peacock, M.P. (L.P.)
New South Wales—The Hon. N. F. Greiner, M.L.A. (L.P.)
Victoria—The Hon. J. G. Kennett, M.L.A. (L.P.)
Queensland—N. Warburton, M.L.A. (A.L.P.)
Western Australia—W. R. B. Hassell, M.L.A. (L.P.)
South Australia—J. W. Olsen, M.H.A. (L.P.)
Tasmania—The Hon. K. S. Wriedt, M.H.A. (A.L.P.)
Northern Territory—B. Collins, M.L.A. (A.L.P.)

Numbers and salaries of Commonwealth Government Ministers

Under sections 65 and 66, respectively, of the Australian Constitution the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000 ($24,000), each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently the number and salaries have been increased from time to time, and at September 1984 the number of Ministers is twenty-seven and ministerial salaries range from $20,820 for a Minister other than the Prime Minister, Deputy Prime Minister, Treasurer or Leader of the Government in the Senate to $46,036 for the Prime Minister. An additional ministerial allowance of $21,170 a year is payable to the Prime Minister, $12,485 a year to the Deputy Prime Minister, $10,585 a year to the Treasurer, the Leader of the House and the Leader of the Government in the Senate, and $8,685 a year to other Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* page 37).

Parliaments and elections

The Commonwealth Parliaments

The first Parliament of the Commonwealth of Australia was convened by proclamation dated 29 April 1901 by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9 May 1901 by H.R.H. the Duke of Cornwall and York. The Rt Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since Federation.

COMMONWEALTH PARLIAMENTS

Number of Parliament	*Date of opening*	*Date of dissolution*
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	30 July 1914 (*a*)
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	6 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	19 March 1951 (*a*)
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	31 October 1966
Twenty-sixth	21 February 1967	29 September 1969
Twenty-seventh	25 November 1969	2 November 1972
Twenty-eighth	27 February 1973	11 April 1974 (*a*)
Twenty-ninth	9 July 1974	11 November 1975 (*a*)
Thirtieth	17 February 1976	8 November 1977
Thirty-first	21 February 1978	19 September 1980
Thirty-second	25 November 1980	4 February 1983 (a)
Thirty-third	21 April 1983	26 October 1984
Thirty-fourth	21 February 1985	

(*a*) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General under section 57 of the Constitution.

The thirty-third Parliament opened on 21 April 1983 and ended on 26 October 1984 when the House of Representatives was dissolved. Writs were issued by the Governor-General on 26 October 1984 for the House of Representatives elections in all States and Territories. The election was announced for 1 December for the House of Representatives and half the Senate.

The thirty-fourth Parliament opened on 21 February 1985.

Qualifications for membership and for franchise—Commonwealth Parliament

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any Australian citizen, eighteen years of age or over and not disentitled on other grounds, who is, or is qualified to become, an elector of the Commonwealth Parliament. Qualifications for Commonwealth Parliament franchise are possessed by any Australian citizen or British subject who was on the Commonwealth Roll as at 25 January 1984, not under eighteen years of age and not disentitled on other grounds. Residence in a subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Although an exception is made for certain electors overseas and for itinerants, enrolment and voting are compulsory for all eligible persons not covered by these exceptions.

The principal reasons for disqualification of persons otherwise eligible for election as members of either Commonwealth House are: membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding an office of profit under the Crown (with certain exceptions), or having a pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than twenty-five persons. Persons convicted of treason and not pardoned, convicted and under sentence for any offence punishable by imprisonment for five years or longer, or persons who are holders of temporary entry permits under the *Migration Act* 1958 or are prohibited non-citizens under that Act are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise. Aboriginals are entitled to enrol and to vote at both Commonwealth and State elections in all States.

Commonwealth Parliaments and elections

From the establishment of the Commonwealth of Australia until 1949 the Senate consisted of thirty-six members, six being returned by each of the original federating States. The Australian Constitution empowers the Commonwealth Parliament to increase or decrease the size of the Parliament, and, as the population of Australia had more than doubled since its inception, the Parliament passed the *Representation Act* 1948 which provided that there should be ten Senators from each State instead of six, thus increasing the total to sixty Senators, enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. The *Representation Act* 1983 further provided for there to be 12 Senators for each state from the first meeting of the thirty-fourth parliament.

The *Senate* (*Representation of Territories*) *Act* 1973 made provision for two Senators to be elected from both the Northern Territory and the Australian Capital Territory. Elections for the Territory Senators are held at the same time as general elections for the House of Representatives.

In accordance with the Constitution, the total number of State Members of the House of Representatives must be as nearly as practicable twice the number of State Senators. Consequent upon the increase in the size of the Senate in 1949, the number of State Members was increased from 74 to 121. In 1955 there were 122 State Members; in 1969, 123; in 1974, 124; in 1977, 121; in 1980, 122. From the first meeting of the thirty-fourth Parliament, there will be a further increase of 23 to 145 State Members flowing from the increase in the number of State Senators to 72.

Redistribution of the States into electoral divisions have taken place in 1949, 1955, 1968, 1974 (Western Australia only), 1977, 1979 (Western Australia only) and 1984. The quota (or average number) of electors is the basis for electoral distribution, but the Distribution Commissioners may vary the enrolment of electorates by up to 10 per cent from the quota in order to achieve equality in enrolment midway between redistributions and to take account of communities of interest, including economic, social and regional interests, means of communication and travel, the trend of population changes, physical features and area, and existing boundaries of electoral divisions.

The Electoral Commissioner determines the representation entitlements of the States during the twelfth month of the life of each Parliament. Determinations are based on the latest population statistics as provided by the Australian Statistician. Should the representation entitlement of a State change, the directions of a redistribution is mandatory. The representation entitlements of the States at the four most recent determinations are shown in the following table:

REPRESENTATION ENTITLEMENTS OF THE STATES

State	*1974*	*1977*	*1979*	*1981*	*1984*
New South Wales	45	43	43	43	51
Victoria	34	33	33	33	39
Queensland	18	19	19	19	24
South Australia	12	11	11	11	13
Western Australia	10	10	11	11	13
Tasmania	5	5	5	5	5
Total	**124**	**121**	**122**	**122**	**145**

Following the Determination of February 1984, Redistribution Committees were appointed in all States and the A.C.T. The redistributions were finalised and came into effect progressively from June to October.

The 1984 election was conducted on the new boundaries with 23 additional Divisions.

From 1922 to 1968 the Northern Territory was represented in a limited capacity by one member in the House of Representatives. In May 1968 the Northern Territory Representation Act 1922 was amended to give full voting rights to the Member for the Northern Territory effective from 15 May 1968, the day on which the Act received Royal Assent.

From 1948 to 1967 the Australian Capital Territory was represented in a limited capacity by one member in the House of Representatives. The Member for the Australian Capital Territory has had full voting rights since 21 February 1967.

Following the passing of the *Australian Capital Territory Representation (House of Representatives) Act* in October 1973 the Australian Capital Territory was divided into two electoral divisions.

Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representatives the State is divided into single electorates corresponding in number to the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Year Book.

The *Commonwealth Electoral Act* 1948, enacted with the *Representation Act* 1948 which enlarged the Commonwealth Parliament changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. The method of voting for both the Senate and the House of Representatives is preferential.

Particulars of voting at Senate elections and elections for the House of Representatives up to 1983 appear in earlier issues of the Year Book. Additional information is available in the *Election Statistics* issued by the Chief Australian Electoral Officer following each election and printed as Parliamentary Papers.

The numbers of electors and of primary votes cast for the major political parties in each State and Territory at the latest election for each House of the Commonwealth Parliament were as follows:

COMMONWEALTH PARLIAMENT ELECTIONS
1 DECEMBER 1984
HOUSE OF REPRESENTATIVES

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Electors enrolled	3,423,624	2,617,291	1,549,749	908,424	858,763	289,142	68,857	150,416	9,866,266
Number of votes recorded for—									
Australian Labor Party	1,458,857	1,117,874	605,972	367,915	359,860	113,094	25,140	71,592	4,120,304
Liberal Party	990,789	842,423	263,457	337,253	341,450	133,173	..	43,127	2,951,672
National Party	318,479	145,435	435,810	11,609	9,817	..	..	..	921,150
Australian Democrats	178,793	115,172	66,283	61,822	27,598	10,432	1,906	10,240	472,246
Nuclear Disarmament Party	5,438	2,702	..	2,270	2,623	..	..	4,944	17,977
Democratic Labor Party	..	49,121	..	..	..	..	..	..	49,121
Socialist Workers Party	4,261	1,236	592	1,836	1,535	..	..	..	9,460
Communist Party of Australia	1,213	..	..	..	..	..	..	..	1,213
Pensioner Party of Australia	..	1,645	..	..	..	..	..	..	1,645
Country Liberal Party	..	..	..	..	..	..	27,335	..	27,335
Deadly Serious Party	..	..	..	..	..	..	..	2,820	2,820
Others	65,572	8,925	3,040	2,205	3,791	3,747	1,581	1,436	90,297
Formal votes	3,023,402	2,284,533	1,375,154	784,910	746,674	260,446	55,962	134,159	8,665,240
Informal votes	198,509	202,740	64,228	74,719	59,801	16,237	2,909	6,982	626,125
Total votes recorded	**3,221,911**	**2,487,273**	**1,439,382**	**859,629**	**806,475**	**276,683**	**58,871**	**141,141**	**9,291,365**

COMMONWEALTH PARLIAMENT ELECTIONS
1 DECEMBER 1984
SENATE

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Electors enrolled	3,423,624	2,617,291	1,549,749	908,424	858,763	289,142	68,857	150,416	9,866,266
Number of votes recorded for—									
Australian Labor Party	1,268,489	1,053,488	556,584	340,115	334,371	108,900	26,040	60,789	3,748,776
Liberal/National Coalition	1,130,601	..	..	..	..	..	..	..	1,130,601
Liberal Party	..	816,362	242,937	306,027	313,738	106,427	..	43,725	1,829,216
National Party	..	95,954	404,736	10,756	13,739	..	..	..	525,185
Australian Democrats	223,095	165,624	127,838	91,329	37,369	15,897	2,449	12,559	676,160
Nuclear Disarmament Party	294,772	174,389	61,488	37,834	52,365	7,574	..	14,013	642,435

COMMONWEALTH PARLIAMENT ELECTIONS
1 DECEMBER 1984—*continued*
SENATE

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Call to Australia Group	109,046	30,797	..	22,429	..	..	..	..	162,272
Country Liberal Party	..	..	..	..	..	..	27,972	..	27,972
Democratic Labor Party	..	32,472	..	..	..	..	..	..	32,472
Pensioner Party of Australia	..	19,922	..	4,052	..	..	..	..	23,974
Conservative Party of Australia	..	..	4,651	..	..	..	..	..	4,651
Australian Family Movement	..	..	..	800	18,041	..	..	..	18,841
Senator Brian Harradine Group	..	..	..	..	..	22,992	..	..	22,992
Referendum First Group	..	..	..	..	..	..	..	5,773	5,773
Other	25,689	1,280	1,931	2,628	2,110	..	548	..	34,186
Formal votes	3,051,692	2,390,288	1,400,165	815,970	771,733	261,790	57,009	136,859	8,885 506
Informal votes	181,572	104,906	47,268	46,399	37,739	15,790	1,862	4,307	439,843
Total votes recorded	**3,233,264**	**2,495,194**	**1,447,433**	**862,369**	**809,472**	**277,580**	**58,871**	**141,166**	**9,325,349**

The state of the parties in each House at the commencement of the thirty-fourth Parliament was: *Senate*—Australian Labor Party 35, Liberal Party 28, National Party 6, Australian Democrats 6 and Independent 1 (after 30 June 1985, the composition of the Senate will be as follows: Australian Labor Party 34, Liberal Party 28, National Party 5, Australian Democrats 7, Nuclear Disarmament Party 1, Independent 1); *House of Representatives*—Australian Labor Party 82, Liberal Party 45, National Party 21.

Referendums

In accordance with section 128 of the Constitution any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament must be submitted to a referendum of the electors in each State and Territory and must be approved by a majority of the electors in a majority of the States and by a majority of all the voters who voted before it can be presented for Royal Assent.

Since 1901 thirty-eight proposals have been submitted to referendums and the consent of the electors has been received in eight cases: the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928, the fourth in respect of Social Services in 1946 and the fifth in respect of Aboriginals in 1967. The remaining three proposals in relation respectively to Senate casual vacancies, maximum retirement age for justices of the High Court and judges of other Federal Courts and the right of electors in the Territories to vote in referendums for the alteration of the Constitution were approved in May 1977. In addition to referendums for alterations of the Constitution, other Commonwealth referendums have been held—two prior to Federation regarding the proposed Constitution and two regarding military service during the 1914–1918 War. For further details of referendums *see* Year Book No. 52, pages 66–68, Year Book No. 60, pages 90–91, and Year Book No. 62, pages 72–73.

On 26 October 1984 writs were issued for 2 referendum questions to be decided on 1 December. They related to Terms of Senators and the Interchange of Powers between State and Commonwealth Governments. The results of the two referendum questions were as follows:

TERMS OF SENATORS

State	*Number of votes given IN FAVOUR of the proposed law*	*Number of votes given NOT IN FAVOUR of the proposed law*	*Number of Ballot-papers rejected as INFORMAL*
New South Wales	1,621,894	1,446,150	148,212
Victoria	1,244,451	1,094,760	136,680
Queensland	642,768	765,329	39,187
Western Australia	358,502	412,996	35,139
South Australia	398,127	398,463	59,636
Tasmania	102,762	158,777	15,561
Australian Capital Territory	76,901	58,764	5,317
Northern Territory	28,310	26,265	4,093
Total for the Commonwealth	**4,473,715**	**4,361,504**	**443,825**

INTERCHANGE OF POWERS

State	*Number of votes given IN FAVOUR of the proposed law*	*Number of votes given NOT IN FAVOUR of the proposed law*	*Number of Ballot-papers rejected as INFORMAL*
New South Wales	1,475,971	1,533,799	206,486
Victoria	1,139,565	1,146,136	190,190
Queensland	578,674	809,249	59,361
Western Australia	336,184	423,022	47,431
South Australia	355,588	418,433	82,205
Tasmania	87,933	165,878	23,289
Australian Capital Territory	74,741	58,487	7,754
Northern Territory	25,684	28,066	4,918
Total for the Commonwealth	**4,074,340**	**4,583,070**	**621,634**

The Parliaments of the States

This section contains summarised information; for greater detail refer to State Year Books.

Membership of State Parliaments. The following table shows the party distribution in each of the State Parliaments at September 1984

STATE PARLIAMENTS: MEMBERSHIP, BY PARTY AFFILIATION, SEPTEMBER 1984

Party	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*
UPPER HOUSE						
Australian Labor Party (A.L.P.)	24	20	..	9	13	1
Independent (Ind.)	2	..	..	..	..	18
Liberal Party of Australia (L.P.)	11	20	..	11	18	..
National Country Party (N.C.P.) (*a*)	..	..	..	..	1	..
National Party (N.P.)	..	..	..	..	1	..
National Party of Australia (N.S.W.) (N.P.A.)	7	..	..	..	..	..
National Party of Australia (Victoria) (N.P.A.)	..	4	..	..	..	..
Australian Democrats (A.D.)	1	..	..	2	..	..
Total	**45**	**44**	(*b*)	**22**	**33**(*c*)	**19**
LOWER HOUSE						
Australian Labor Party (A.L.P.)	58	49	32	24	32	14
Independent (Ind.)	4	..	1	..	1	2
Independent Labor (Ind. Lab.)	..	..	..	1	..	..
Liberal Party of Australia (L.P.)	22	23	6	21	19	19
National Country Party (N.C.P.) (*a*)	..	..	..	1	3	..
National Party (N.P.)	..	..	43	..	2	..
National Party of Australia (N.S.W.) (N.P.A.)	15	..	..	..	..	..
National Party of Australia (Victoria) (N.P.A.)	..	9	..	..	..	..
Australian Democrats (A.D.)	..	..	..	..	..	..
Total	**99**	**81**	**82**	**47**	**57**	**35**

(*a*) Formerly the National Alliance Party. (*b*) Upper House abolished in 1922. (*c*) Vacant seat following death of a Liberal Party member.

For corresponding particulars for the Commonwealth Parliament, *see* pages 34-35.

Number and salaries and allowances of members of the legislatures, Commonwealth parliaments, September 1984

COMMONWEALTH AND STATE PARLIAMENTS: MEMBERS—ANNUAL SALARIES AND ALLOWANCES, SEPTEMBER 1984

Members in—	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
NUMBER OF MEMBERS								
Upper House	64	45	44	(*a*)	22	34	19	225
Lower House	125	99	81	82	47	57	35	524
Total	**189**	**144**	**125**	**82**	**69**	**91**	**54**	**749**

COMMONWEALTH AND STATE PARLIAMENTS: MEMBERS—ANNUAL SALARIES AND ALLOWANCES, SEPTEMBER 1984—*continued*

Members in—	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
				ANNUAL SALARY (*b*) ($)				
Upper House	(*c*)41,802	30,657	41,302	(*a*)	37,500	37,622	28,621	..
Lower House	(*c*)41,802	39,558	41,302	39,833	37,500	37,622	28,621	..
				ELECTORAL ALLOWANCES ($)				
Upper House	15,200	(*d*)9,982	12,163–17,637	(*a*)	11,500	(*d*)11,243–25,296	(*d*)3,148–7,441	..
Lower House	(*e*)15,200–22,040	(*d*)12,880–23,075	(*d*)12,163–17,637	(*d*)9,550–24,630	(*d*)7,785–28,800	(*d*)10,410–24,464	(*d*)4,293–10,017	..

(*a*) Abolished in 1922. (*b*) Basic rates (payable to backbenchers, etc.) only; additional rates apply for Ministers, etc. (*c*) Certain additional allowances are also provided for holders of parliamentary offices, etc. (*d*) Allowance payable depends on location of electorate and, for Victoria, Tasmania and Western Australia, size of electorate. In N.S.W. a special expense allowance for members of the Lower House of $5,182-$7,793, is paid to members representing country electorates with members, of the Upper House, who reside in country districts, receiving $4,664-$7,793 per annum. (*e*) A member of the House of Representatives representing an electorate of less than 5,000 square kilometres receives an electorate allowance at the rate of $15,200 p.a., a member representing an electorate with a population of 140,000 or more receives $18,460 p.a.; a member representing an electorate of 5,000 square kilometres or more receives an electorate allowance at the rate of $22,040 p.a.

Outlay on parliamentary government

The table below shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; *it does not attempt to cover the expenditure on Commonwealth and State administration generally.* Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. Expenditure under the head of Governor-General or Governor includes salaries of Government House staffs and maintenance of residences, official establishments, grounds, etc., and expenditure on capital works and services.

OUTLAY ON PARLIAMENTARY GOVERNMENT, 1982–83
($'000)

Expenditure group	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Total*
Governor-General or Governor (*a*)	7,888	1,086	1,618	871	679	735	783	641	23,920
Ministry (*b*)		1,726	1,779	2,628	846	490	897	1,253	
Parliament—									
Upper House (*c*)	4,833	1,569	2,305	..	1,213	2,283	824	..	13,027
Lower House (*c*)	7,627	4,799	3,942	3,472	2,292	3,547	963	720	27,362
Both Houses (*d*)	42,934	15,987	13,133	6,696	3,973	4,810	2,105	1,210	90,848
Miscellaneous (*e*)	24,103	836	2,389	4,977	2,290	1,030	304	51	35,980
Total, Parliament	*79,497*	*23,191*	*21,769*	*15,145*	*9,770*	*11,670*	*4,195*	*1,982*	*167,219*
Electoral (*f*)	40,756	2,304	1,367	1,988	1,853	2,325	554	197	51,344
Royal Commissions, Select Committees, etc.	4,166	1,124	2,012	22	107	80	16	..	7,527
Grand Total	**132,307**	**29,431**	**28,545**	**20,654**	**13,254**	**15,301**	**6,445**	**4,074**	**250,011**

(*a*) Salaries and other expenses, including maintenance of house and grounds. (*b*) Salaries, travelling and other expenses as ministers. (*c*) Allowances to members (including ministers' salaries as members), travelling and other expenses. (*d*) Government contribution to members' superannuation funds, printing, reporting staff, library, etc. (*e*) Services, furniture, stores, etc. (*f*) Salaries, cost of elections, etc.

OUTLAY ON PARLIAMENTARY GOVERNMENT

Year	*Cwlth(a)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.(b)*	*Total*
				TOTAL ($'000)					
1977–78	69,830	16,846	13,412	9,823	7,554	8,096	4,650	..	130,210
1978–79	70,424	19,315	16,512	12,516	7,904	9,517	5,382	2,468	144,038
1979–80	74,037	17,794	17,460	13,822	8,922	10,544	6,439	3,629	152,647
1980–81	97,293	19,582	19,290	19,487	9,227	11,180	7,319	4,345	187,723
1981–82	103,276	27,508	27,610	23,738	10,829	12,916	8,046	2,948	216,872
1982–83	132,307	29,431	28,544	20,654	13,254	15,301	6,445	4,074	250,011

OUTLAY ON PARLIAMENTARY GOVERNMENT—*continued*

Year	*Cwlth(a)*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.(b)*	*Total*
PER HEAD OF POPULATION ($)									
1976–77	4.30	2.85	3.25	3.61	4.68	6.09	10.95	. .	7.99
1977–78	4.89	3.35	3.48	4.56	5.84	6.64	11.20	. .	9.12
1978–79	4.88	3.81	4.26	5.69	6.08	7.66	12.89	22.60	9.98
1979–80	5.07	3.47	4.48	6.15	6.84	8.35	15.29	32.03	10.46
1980–81	6.57	3.76	4.91	8.44	7.03	8.70	17.21	36.36	12.68
1981–82	6.87	5.22	6.95	9.95	8.17	9.81	18.76	23.42	14.41
1982–83	8.66	5.52	7.11	8.44	9.93	11.32	14.96	30.98	16.36

(*a*) Includes appropriations for the construction of the new Commonwealth Parliament House which amounted to $500,000 in 1979-80, $7,500,000 in 1980-81, $23,100,000 in 1981-82 and $53,700,000 in 1982-83.

(*b*) From 1981-82 more detailed information has been obtained which has allowed a more accurate calculation of the cost of parliamentary government in the Northern Territory. Figures for earlier years on the revised basis are not available.

Commonwealth Government Departments

Subsequent to the December 1984 election, a number of Commonwealth Government departments were reorganised and renamed in view of significant changes of functions: These are as follows:

- Industry, Technology and Commerce (previously Industry and Commerce);
- Science (previously Science and Technology);
- Education (previously Education and Youth Affairs);
- Arts, Heritage and Environment (previously Home Affairs and Environment);
- Territories (previously Territories and Local Government);
- Local Government and Administrative Services (bringing together functions from Territories and Local Government and Administrative Services).

A new Department of Community Services has been created. The Department of Defence Support has been abolished, and most of its functions allocated to Defence.

For further information on the Acts administered, the functions and the organisation of the Departments and Agencies of the Commonwealth Government *see* the *Commonwealth of Australia Gazette* of 13 December 1984.

Acts of the Commonwealth Parliaments

In the Commonwealth Parliament all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Australian Constitution. In all States, other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the Legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal Assent. The Parliaments of the States are empowered generally, subject to the Australian Constitution, to make laws in and for their respective States in all cases whatsoever. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth Parliament, the latter law prevails and the former law is, to the extent of the inconsistency, invalid.

The enactment/history of Commonwealth Parliament legislation

The legislation passed by the Commonwealth Parliament between 1901 and 1973, and which was then still in operation, is published in a consolidated form entitled *Acts of the Parliament 1901–1973*. Since 1974, annual volumes of Acts have also been published. The consolidation contains a chronological table of Acts passed from 1901 to 1973, showing how they are affected by subsequent legislation or lapse of time, together with a table of legislation of the Commonwealth Parliament passed from 1901 to 1973 in relation to the several provisions of the Australian Constitution. Reference should be made to these for complete information.

The number of enactments of the Commonwealth Parliament since 1901 has considerably increased, in 1983 147 enactments were passed.

National Anthem and Colours of Australia

For details of the official proclamation issued on 19 April 1984 *see* Appendix, Year Book No. 68.

CHAPTER 4

DEFENCE

This chapter outlines Australia's defence policy and its defence relationships with other countries; the higher defence organisation; the functions, organisations, manning and training of the three Services; the functions and activities of the Defence Science and Technology Organisation, the Natural Disasters Organisation and the Department of Defence Support.

Further information on current defence planning and activities is available in the Defence Report and other publications of the Department of Defence, and in statements to the House of Representatives by the Minister for Defence.

Current defence policy

Australian defence policy is primarily directed to the development of independent and, within resource constraints, increasingly self-reliant defence capabilities to deter and, if necessary, defeat military threats against Australia and its direct interests.

Planning for Australia's defence is not based on meeting particular threats. Rather it recognises that there are a number of possible contingencies which, were they to arise, would have consequences for our security. Particular attention is given to the capabilities of the Defence Force to deal with lesser threats or contingencies, such as limited harassments, raids, incursions, etc., that could arise at short notice and to ensuring that there are options for a future government to expand defence capability in response to changes in the strategic outlook.

The security and stability of our immediate neighbourhood is of major strategic importance to Australia and the continued development of an independent defence capability enhances our ability to contribute to the peaceful development of that region. Priority in defence activity is consequently given to areas close to Australia and high value is placed on fostering the defence relationship with the countries of South East Asia and the South West Pacific.

The ANZUS alliance remains an important element of our defence policy. Although the Treaty was concluded a generation ago and in a very different strategic environment, the commitments and obligations that were accepted then remain relevant and applicable to contemporary strategic circumstances. The partners acknowledge that the alliance is based on the fundamental precept that the Treaty does not absolve each government from the primary responsibility to provide for its own security to the extent that its resources allow.

Higher defence organisation

The higher organisation of the Defence Force is dealt with in the *Defence Act 1903*, which provides that responsibility for the general control and administration of the Defence Force rests with the Minister for Defence.

Chief of the Defence Force: Under section 9 (2) of the *Defence Act 1903* the Chief of the Defence Force is vested with the command of the Defence Force. The Chief of the Defence Force is the chief military adviser to the Minister and in addition the Chief of the Defence Force has, with the Secretary, the joint administration of the Defence Force as specified below.

Secretary, Department of Defence: The Secretary has the normal powers and responsibilities of a Departmental Secretary under the Public Service Act, the Audit Act and Finance Regulations. In addition to these powers, section 9A of the *Defence Act 1903* makes the Secretary and the Chief of the Defence Force jointly responsible for the administration of the Defence Force (except for the matters falling within the command of the Defence Force or any other matter specified by the Minister). The Secretary is the principal civilian adviser to the Minister for Defence and is responsible to the Minister for advice on general policy and on the management and utilisation of defence resources.

Higher Defence Machinery

An extensive committee system in the higher defence organisation formulates policy for the achievement of government defence objectives. It also facilitates decisions on matters of defence administration, including resource management, and on Joint Service planning and doctrine. The more important committees are described below.

The *Council of Defence* considers and discusses matters relating to the control and administration of the Defence Force referred to it by the Minister for Defence. The Council is chaired by the Minister for Defence and membership comprises the Minister Assisting the Minister for Defence, the Minister for Defence Support, the Secretary to the Department of Defence, the Chief of the Defence Force, the Secretary of the Department of Defence Support and the three Service Chiefs of Staff.

The *Defence Committee* is chaired by the Secretary to the Department of Defence, with the Chief of the Defence Force, the Chiefs of Staff, and the Secretaries to the Departments of the Prime Minister and Cabinet, Treasury and Foreign Affairs as members. The Committee advises the Minister for Defence on policy as a whole, the co-ordination of military, strategic, economic, financial and foreign affairs aspects of defence policy, and matters of policy or principle and important questions having a joint service or inter-departmental aspect.

The *Chiefs of Staff Committee* is responsible to the Minister for Defence through the Chief of the Defence Force, who is chairman of the committee. Its principal function is to provide advice to the Chief of the Defence Force, including professional single-service advice, to assist him in discharging his responsibility for command of the Defence Force.

The *Defence Force Development Committee* is chaired by the Secretary to the Department of Defence, with the Chief of the Defence Force, the Secretary to the Department of Defence Support and the three Chiefs of Staff as members. It advises the Minister for Defence on force development and the management of resources, including major equipment and facilities acquisitions and formulation of the Five Year Defence Program and annual budget estimates.

Defence Review

On 30 April 1981, the then Prime Minister announced in the House of Representatives a major review of the defence organisation as part of the Review of Commonwealth Functions. The final report of the Committee was presented to the then Minister for Defence in October 1982, and tabled in the Parliament in November 1982.

The recommendations of the Committee were generally accepted by the Government on 2 April 1984. The Government noted the Defence Review Committee's endorsement of the overall structure of the Defence Organisation established in the Defence Reorganisation of 1972-76.

A programme for the prompt and orderly implementation of the recommended organisation and machinery changes has been established. Significant recommendations which have been implemented include:

- the redesignation by legislation of the officer commanding the Defence Force as the Chief of the Defence Force and the provision of additional staff resources to strengthen the position;
- the centralisation of capital equipment procurement into a Capital Procurement Organisation in July 1984.
- the transfer of the responsibility for Defence Facilities Division to the Chief of Supply and Support, as it is a logistics function.

Equipment for the Defence Force

An amount of $1,213.4 million (excluding special purpose B707 aircraft) was spent on equipment of a capital nature in 1983-84. An amount of $1,405.3 million is expected to be spent in 1984-85.

Expenditure on major capital equipment in 1983-84 continued to be dominated by commitments arising from already approved projects. These include 75 McDonnell-Douglas F/A-18 tactical fighter aircraft; four US-built FFG guided missile frigates; ten additional P-3C Orion long range maritime patrol aircraft; PAVETACK target acquisition and tracking systems for the F111 aircraft; four and eight tonne trucks for the Army; and a modernisation program for the RAN's three guided missile destroyers.

On 12 October 1983 the Minister for Defence announced that the Government had decided in principle to proceed with the construction of two FFG-class frigates at Williamstown Naval Dockyard under what is now known as the Australian Frigate Project.

New major capital equipment items approved in the 1984-85 Budget context include the acquisition of helicopters for the FFG frigates, with an anti-submarine, surveillance and weapon targeting capability; the joint production at the Ordnance Factories at Bendigo and Maribyrnong of new 105mm field guns for the Army; the production in Australia of some 2000 HF radios for the Army; and the acquisition of new electronic warfare equipment to equip the ten P-3C aircraft presently being acquired.

EXPENDITURE ON DEFENCE FUNCTION
($'000)

	Actual expenditure					*Estimated expenditure*
Departmental category	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85*
Department of Defence—						
Capital Equipment	495,731	563,556	500,748	792,758	1,134,046	1,334,787
Capital Facilities	89,706	116,793	161,737	165,410	186,405	224,476
Defence Co-operation	30,045	37,914	39,676	44,209	45,644	48,201
Manpower	1,386,587	1,599,461	2,045,640	2,088,646	2,143,452	2,242,176
Other Running Costs	788,876	967,616	1,044,268	1,180,569	1,236,116	1,321,495
Total	*2,790,945*	*3,285,340*	*3,792,069*	*4,271,592*	*4,745,663*	*5,171,135*
Department of Defence Support—						
Capital Equipment	14,190	21,593	32,833	66,362	79,365	70,502
Capital Facilities	8,277	8,014	17,298	38,699	60,004	47,190
Manpower	12,453	15,961	19,196	97,729	108,806	101,961
Other Running Costs	82,277	91,963	112,653	137,945	169,085	177,939
Total	*117,197*	*137,531*	*181,980*	*340,735*	*417,260*	*397,592*
Other Departments—						
Capital Facilities	4,470	8,541	9,180	13,395	16,034	14,127
Manpower (including Renumeration Tribunal and Defence Forces Retirement and Death Benefits)	177,243	200,183	246,056	279,714	324,015	350,469
Other Running Costs	22,710	27,355	34,750	36,612	37,093	39,931
Total	*204,423*	*236,079*	*289,986*	*329,721*	*377,142*	*404,527*
Total expenditure on Defence function	**3,112,565**	**3,658,947**	**4,264,035**	**4,942,048**	**5,540,065**	**5,973,254**
Special provisions—						
Acquisition of Special Purpose Boeing 707 aircraft	3,395	196	289	103	30	82
Allowance for prospective wage and salary increases	..	..	..	..	..	60,000
Total Defence expenditure	**3,115,960**	**3,659,143**	**4,264,324**	**4,942,151**	**5,540,095**	**6,033,336**

Notes: 1. The 1982-83 expenditures and 1984-85 estimates of expenditure for the Department of Defence Support include expenditures previously attributable to the Departments of Defence, Industry and Commerce, Administrative Services and Science and Technology. It is not readily possible to express expenditures for 1979-80 to 1981-82 in a form comparable to that shown for 1982-83 and 1984-85. Expenditures shown for the Department of Defence Support prior to 1982-83 are primarily those for the former Department of Industry and Commerce and the Defence purchasing element of the Department of Administrative Services. 2. The 1983-84 expenditure and 1984-85 estimates of expenditure include classification changes reflected in the 1984-85 Budget Paper No. 1. 3. Where figures have been rounded, *discrepancies may occur between sums of the component items and totals.*

Defence Industry

The Government announced principles on Defence Policy for Australian Industry in June 1984. It noted that Australian industry is extensively involved in programs for the support of the Defence Force which are consistent with strategic priorities and often involve cost premiums above those associated with the Government's general policies. The extent to which penalties for industry involvement in defence procurement are accepted has been determined by making case-by-case judgements of the value of the support and the penalties in cost, capability and availability.

The Government agreed that an effective defence policy for industry cannot be formulated except as an integral part of comprehensive defence policy. Defence funding of local industrial development or of local content in defence procurement should be made in the context of defence policies and priorities.

The Government accorded priority for the use of defence resources for the development of local industrial capability to firstly, repair, overhaul and adapt military equipment assessed as fundamental to Australia's defence in those circumstances which the Government accepts as the primary basis for defence planning.

In recent years over 90 per cent of defence spending on equipment repair and overhaul was incurred in Australia. In 1983-84 some 95 per cent of the $188.8 million spent on maintenance and repair of Defence Force equipment was spent in Service maintenance depots, naval and other dockyards, Government factories and private industry throughout Australia. Australian industry was involved in, for example, refitting the Oberon submarines (costing $30-40 million per vessel), modernising the RAN's DE and DDG vessels (project costs of $139 million respectively) and refurbishing RAAF Macchi and Mirage aircraft (project costs of $26 million and $72 million respectively).

The Government also accorded priority to funding local supply of the munitions, spares and other consumable stores for which Australia could least rely on overseas supply (including stockpiling and other actions to giver greater assurance of supply). Accordingly over 70 per cent of total defence spending on these items is routinely incurred in Australia. In 1983-84 Australian industry accounted for 72.5 per cent of the $534.0 million spent on defence, for example, replacement gun barrels and tank tracks, commonly used ammunition, and spare parts like turbine blades.

The Government also accorded priority to developing within local industry the range of technologies and supply and support capabilities (including design, development, and manufacture) identified as meeting the longer-term needs of the Defence Force in accord with Government policy and defence guidance as to an acceptable balance of strategic benefits and costs. Defence capital equipment procurement is managed accordingly.

In recent years some 30 per cent of total defence spending of capital equipment is routinely incurred in Australia on selective local design and development and equipment; Australian adaptation of overseas technology to meet particular Australian requirements; local manufacture or construction under license of overseas designed capital items; and purchasing for military use, Australian manufactured commercial products. In 1983-84, total defence expenditure on capital equipment was $1,213.4 million, of which $364.5 million was incurred in Australia.

Complete design, development and manufacture of military equipment is undertaken on a selective basis to meet a unique Australian requirement or where there is a particular defence benefit. For example, the Mulloka sonar system was developed specifically for the Australian maritime environment by the Defence Science and Technology Organisation, and it is now being manufactured by Thorn EMI (Ltd) and progressively fitted in the RAN's destroyer escorts. Indigenous aircraft design and construction skills are maintained by projects like the Nomad utility aircraft and the subsequent RAAF basic pilot trainer now being developed by the Australian Aircraft Consortium.

Overseas technology is being adapted to particular Australian requirements in, for example, construction of tactical radios for the Army (Project Raven) and the Defence Integrated Secure Communications Network (DISCON) by Plessey (Australia) Pty Ltd.

Australian defence industry also manufactures overseas designed equipment under license. In November 1984 North Queensland Engineers and Agents Pty Ltd launched the last of 14 British designed Fremantle-Class patrol boats being built for the RAN. The French-designed underway replenishment ship being built by Vickers Cockatoo Dockyard was launched in 1984. Production development by the Australian Government Ordinance Factories of the UK-designed 105mm light gun is now well advanced.

Australian industry manufactures numerous commercial items suitable for military use. Mack trucks (Australia) Pty Ltd is to construct 940 eight tonne trucks for the Army; Mercedes Benz (Australia) Pty Ltd has contracted for the 1,295 four tonne trucks also required by the Army.

In 1983-84 payments for relatively few, but very complex and necessarily imported capital items (for example F/A-18 fighters and Orion long range maritime patrol aircraft) absorbed 70 per cent of defence capital equipment spending. At the same time these overseas purchases generated opportunities for Australian industry. The F/A-18 project, for example, designates a carefully chosen range of assembly and manufacturing tasks to be undertaken in Australia to establish the requisite indigenous support capacity. In addition, a broad range of Australian industry will compete for offset work negotiated in conjunction with the contract.

INDUSTRY RELATED DEFENCE EXPENDITURE IN AUSTRALIA

	1979–80		*1980–81*		*1981–82*		*1982–83*		*1983–84*	
	$m	*%*	*$m*	*%*	*$m*	*%*	*$m*	*%*	*$m*	*%*
Capital Equipment—										
Total	509.9		585.1		533.6		859.1		1,213.4	
Local	160.3	31.4	204.2	34.9	307.7	57.7	334.2	38.9	364.5	30.0
Replacement Equipment and Stores—										
Total	359.4		442.7		461.6		517.8		534.0	
Local	252.4	70.2	314.3	71.0	328.8	71.2	356.6	68.9	385.9	72.5
Equipment Repair and Overhaul—										
Total	108.2		134.9		159.9		183.5		188.8	
Local	98.6	91.1	126.3	93.6	146.3	91.5	170.4	92.9	178.5	94.5
Total Equipment Related Expenditure—										
Total	977.6		1,162.7		1,155.1		1,560.4		1,936.2	
Local	511.3	52.3	644.7	55.4	782.7	67.8	861.2	55.2	928.9	48.0

Notes 1. Where figures have been rounded, *discrepancies may occur between sums of the component items and totals.*.

2. The 1983–84 figures reflect classification changes included in the 1984-85 Budget Paper No. 1.

Supply and support

Supply and support is concerned with maintenance of the Defence Force rather than with the more visible activities concerned with the acquisition of new equipment. It nevertheless performs a vital role in contributing to the state of Defence Force effectiveness.

Despite continued efforts to foster maximum practical Australian industry production and involvement, we must accept a level of dependence on overseas source of supply for major items of defence equipment. It is therefore necessary that efforts continue to be devoted to improving the reliance which can be placed on these overseas sources for continued support, particularly in other than peacetime. Progress in this important area continues.

The additional support costs associated with a rapidly increasing technology in weapon systems continues to put pressure on supply and support resources particularly when combined with the present need to make a greater percentage of defence expenditure available for new major equipment purchases. Attention is therefore turning even more to more rigorous justification of needs, increased rationalisation and improved efficiency.

Progress was made during the year towards this goal of improved efficiency with completion of the conversion of the three Services central EDP based supply systems from Honeywell to UNIVAC computers and introduction of a computer based system to improve management of the freight coming from North America.

In the longer term, the Services' EDP based supply systems are to be extensively redeveloped. This centrally managed and co-ordinated redevelopment, planned to coincide with replacement of computer hardware, is necessary to ensure that systems are responsive to Defence Force needs beyond the year 2000. A project organisation is currently being set up and has already begun its task. Implementation of systems is planned in the period 1988-1992.

International arrangements are also an important aspect of supply and support activity. The 1980 Memorandum of Understanding (MOU) on Logisitic Support with the United States expires in early 1985 and steps are being taken towards its renewal. Arrangements for co-operative military airlift support were agreed in January 1984 and now form an annex to the MOU. Progress towards development of closer co-operative defence arrangements with New Zealand continues with reciprocal arrangements agreed during the year for repair and maintenance of defence equipment. Arrangements are also under development designed to facilitate co-operation in selected major defence procurement projects.

Capital facilities

During 1983-84, total expenditure on capital facilities was $186 million. Expenditure in 1984-85 is expected to be $224 million.

Emphasis throughout 1983-84 continued to be placed on the provision of facilities for planned new equipment and the continued upgrading and modernisation of existing facilities. Proposals for works to develop RAAF Base Tindal, at an estimated cost of $167 million, were supported by the Public Works Committee report of May 1984. Work commenced to provide operational and support infrastructure for the F/A-18 at Williamtown costing $32 million. A new explosive storage facility for the Navy at Cairns and a replacement wharf for patrol boats at HMAS '*Encounter*' in South Australia were commenced. Work also commenced on redevelopment of facilities for the Air Defence Regiment at Woodside, South Australia. The total is estimated to be $15 million with completion planned for 1986-87. Works to improve two of the Army's brigade areas at Townsville and Holsworthy were completed. $29 million was spent on the purchase or construction of houses during the year. 450 houses were built and the construction or purchase of a further 397 was authorised. $8 million was spent in improving existing older houses.

Defence manpower

The following table indicates the range of activities and occupations in which defence military and civilian manpower are involved.

FUNCTIONAL DISTRIBUTION OF DEFENCE MANPOWER AS AT 30 JUNE 1984

Function	*Service*	*Civilian*	*Total*
Operational Forces and Logistic Support	32,123	784	32,907
Specialist Support (e.g. communications, medical services)	5,390	4,098	9,488
Stores and Supply: Storage and Control	2,764	4,399	7,163
Equipment production, repair and overhaul	3,098	1,201	4,299
Training	16,518	1,452	17,970
Support to Reserves and Cadets	1,635	128	1,763
Research and Development	291	4,486	4,777
Department of Defence Headquarters and Administration including overseas representation	4,164	3,040	7,204
Department of Defence Regional Commands and Administration	5,458	3,892	9,350
Defence Co-operation	201	5	206
Sub-Total	*71,642*	*23,485*	*95,127*
Department of Defence Support—			
Shipyards	—	5,342	5,342
Aerospace	—	2,387	2,387
Munitions	—	6,226	6,226
Industry Support and Corporate Services	—	1,311	1,311
Sub-Total	—	*15,266*	*15,266*
Total	**71,642**	**38,751**	**110,393**

Notes: Figures cannot be reconciled with those in Year Books published prior to 1983 owing to changes within classifications and transfer of civilian staff to the Department of Defence Support. Civilian figures include only full-time operatives and exclude locally engaged civilians employed in support of Air Force deployment, overseas persons on extended leave and part-time staff.

Permanent Defence Force

PERSONNEL STRENGTHS OF THE PERMANENT DEFENCE FORCE AS AT 30 JUNE 1984

	Navy	*Army*	*Air Force*	*Total*
1979	16,582	31,813	21,803	70,198
1980	16,961	32,321	22,249	71,531
1981	17,298	32,898	22,322	72,518
1982	17,598	32,876	22,711	73,185
1983	17,198	33,072	22,512	72,782
1984	16,692	32,278	22,672	71,642
1985 (approved targets)	16,246	32,677	22,797	71,720

COMPOSITION OF PERMANENT DEFENCE FORCE (*a*) AS AT 10 JUNE 1984

	Navy	*Army*	*Air Force*	*Total*
Male—				
Officers	2,117	4,197	3,384	9,698
Other Ranks	12,527	25,006	16,539	54,072
Cadets	328	509	469	1,306
Apprenctices	645	603	569	1,817
Junior Recruits	76	—	—	76
Sub-Total	*15,693*	*30,315*	*20,961*	*66,969*
Females (*b*)—				
Officers	148	371	265	784
Other Ranks (*c*)	851	1,592	1,446	3,889
Sub-Total	*999*	*1,963*	*1,711*	*4,673*
Total Strength	**16,692**	**32,278**	**22,672**	**71,642**

(*a*) Includes Reserve personnel on full-time duty. (*b*) Excludes female personnel on maternity leave. (*c*) Includes female officer cadets and female apprentices.

Reserve Forces

Reserves comprise trained and partly trained volunteers who are available to participate in the defence of Australia and its interests in times of war or defence emergency. Royal Australian Navy and Royal Australian Air Force Reserves can be used to supplement and increase the rate of effort of the Permanent Forces. The Army Reserve consists mainly of formed units and sub units, which with the Regular Army, provide the basis for expansion of the Army.

RESERVE COMPONENTS WITH TRAINING OBLIGATIONS (*a*) AS AT 30 JUNE 1984

	Navy	*Army*	*Air Force*	*Total*
1979	1,037	22,978	498	24,513
1980	1,039	23,986	502	25,527
1981	1,021	31,125	591	32,737
1982	1,094	31,706	873	33,673
1983	1,204	33,227	1,178	35,609
1984	1,220	29,021 (*b*)	1,277	31,518

(*a*) Reserves with training obligations (*b*) The reduction in strength from 33,227 as at 30 June 1983 results from:

1. A controlled recruiting programme instituted to bring Army Reserve strength down to a ceiling of 30,000; and
2. An unforseen increase in the number of discharges in the latter half of the financial year.

Defence Co-operation

In support of Australia's defence and foreign policies the Government seeks to foster practical working relationships in the defence field with Papua New Guinea (PNG), South-East Asian and South-West Pacific countries. Within the framework of the Five Power Defence Arrangements (Australia, Malaysia, New Zealand, Singapore, United Kingdom) Australia maintains a Defence Force presence in Malaysia with periodic deployments to Singapore (see following section of 'Defence Force Activities Overseas'), participates in the Integrated Air Defence System and in multilateral exercises with Five Power partners in the region.

Bilateral activities include exchanges of senior level visits, strategic consultations, combined military exercises and naval visits. We have granted use of certain Australian training facilities to Singapore to meet its own military training requirements. A principal bilateral activity is the Defence Co-operation Programs (DCP). These programs are geared to the needs and priorities of co-operating countries, and emphasise the transfer of skills and technology. Activities include training in Australia, joint projects, loan of Australian personnel, and combined military exercises.

In 1983–84 some 1,137 Service personnel from countries participating in the Defence Co-operation Program were trained in Australia by the three Services or with civil organisations.

Co-operation with PNG included the provision of Australian Loan Servicemen to PNG, combined exercises, training for PNG Servicemen in Australia, the provision of a Nomad aircraft and other defence equipment to help develop the Papua New Guinea Defence Force and an engineering project. Expenditure in 1983–84 totalled $16.5 million.

In Indonesia, major Defence Co-operation projects include maritime patrol assistance, survey and mapping of Irian Jaya and the islands east and west of Sumatra, and turbine conversion of Sioux helicopters. Together with the provision of training and technical assistance, total expenditure was $8.9 million in 1983–84.

Assistance to Malaysia in 1983–84 amounted to $5.7 million, mainly for training. Australian servicemen in Malaysia provided assistance in the areas of computer logistics, and the development of an armour/artillery training centre.

Defence Co-operation with Singapore, composed of training and study visits in Australia and flying instructors in Singapore, totalled $1.6 million in 1983–84. A similar amount ($1.7 million) was spent on the program with the Philippines in 1983–84 and included Army technicians to assist in establishing a Nomad maintenance system as well as training and study visits in Australia.

Assistance to Thailand amounted to $5.6 million, mainly towards the provision of four Nomad aircraft, and the maintenance support of existing Nomad aircraft purchased by Thailand.

In 1983–84 expenditure on co-operation with South-West Pacific countries increased to $4.4 million. Activities in the South-West Pacific are not confined to those states with defence forces. They include technical advisory assistance, survey and mapping, hydrography, joint communications projects, engineering assistance in civil engineering projects, training and equipment assistance.

Defence Representation Overseas

Australia has resident Defence representation in 17 countries: Britain, China, France, Federal Republic of Germany, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Pakistan, Papua New Guinea, Philippines, Singapore, Suva, Thailand and the United States of America. In addition there is non-resident accreditation in Canada (from the United States of America), Iran (from Pakistan), Nepal (from India), Burma (from Thailand), Switzerland (from France) and to the South Pacific States of Vanuatu, Solomon Islands, Western Somoa, Tuvalu, Kiribati and Tonga (from Suva).

Defence Force Activities Overseas

The main areas where Australian Defence Force elements have been deployed during the year were Malaysia/Singapore, Papua New Guinea, the Middle East and the Indian Ocean. Units also visited the United Kingdom and Federal Republic of Germany, Indonesia, the Philippines, Japan, the United States, Canada, New Zealand and the South-West Pacific.

Australian Defence Force elements in the Malaysia/Singapore area include:

Navy—A Destroyer or Destroyer Escort is maintained in South-East Asian waters for much of the year. In addition other ships of the RAN visits the area on goodwill visits.

Army—An Australian infantry company is maintained at Butterworth on the basis of three month detachments from Australia, in a training role.

Air Force—The Government has decided that the Mirages will be replaced from mid 1988 by periodic deployments of F/A-18s as these aircraft are phased into service with the RAAF.

The Defence Force continued to contribute to United Nations peacekeeping operations with Australian Army observers in Kashmir, Egypt, Israel, Syria and Lebanon. In addition, since March 1982 Defence Force personnel have been deployed to Sinai for peacekeeping duties with the Multinational Force and Observers (MFO). An Australian Army Officer has been seconded to the UN HQ in New York for liaison duties.

Five Australian Army instructors have been in Uganda since March 1982, as part of a Commonwealth Military Training Team.

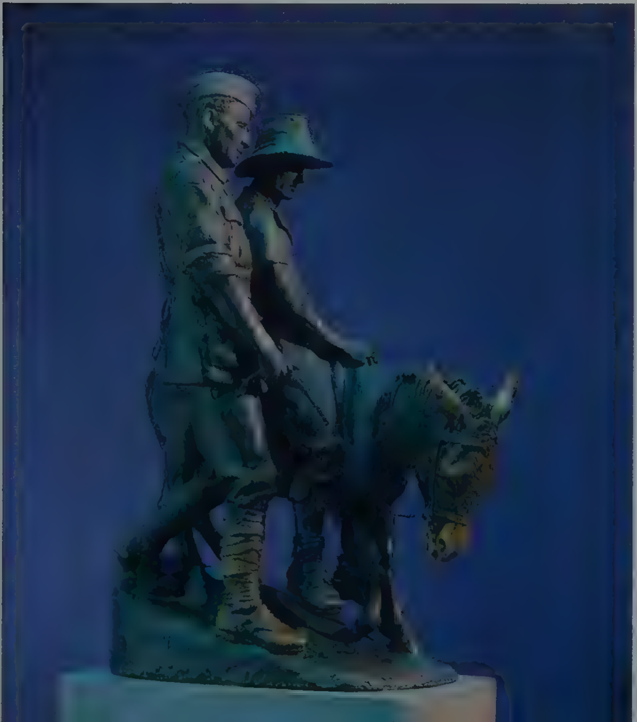
Since mid-January 1981 RAN ships have been deployed for patrol duties in the Indian Ocean littoral states.

Under the Defence Co-operation Program elements of the Defence Force have continued to conduct survey and civil engineering operations in the neighbouring countries. In 1983–84 major survey operations were undertaken in Indonesia and PNG and other survey tasks in Malaysia, Kiribati, and Tuvalu. A small group of Army Survey personnel are located in PNG assisting their National Mapping Bureau, an Army engineering unit is permanently located in the Southern Highlands Province of PNG and engineer units have been deployed to Fiji and Solomon Islands.

Aerial view of the Australian War Memorial, Canberra.

Australian War Memorial

The Memorial's new GALLIPOLI GALLERY opened in August 1984 by the Governor-General Sir Ninian Stephen, contains many models, documents and personal memorabilia of the Gallipoli campaign.—1985 is the 70th anniversary of Gallipoli. For further information on the Memorial *see* page 616.



'Simpson' The Man with the Donkey—W. Leslie Bowles' bronze sculpture captures the spirit of Anzac.

Australian War Memorial

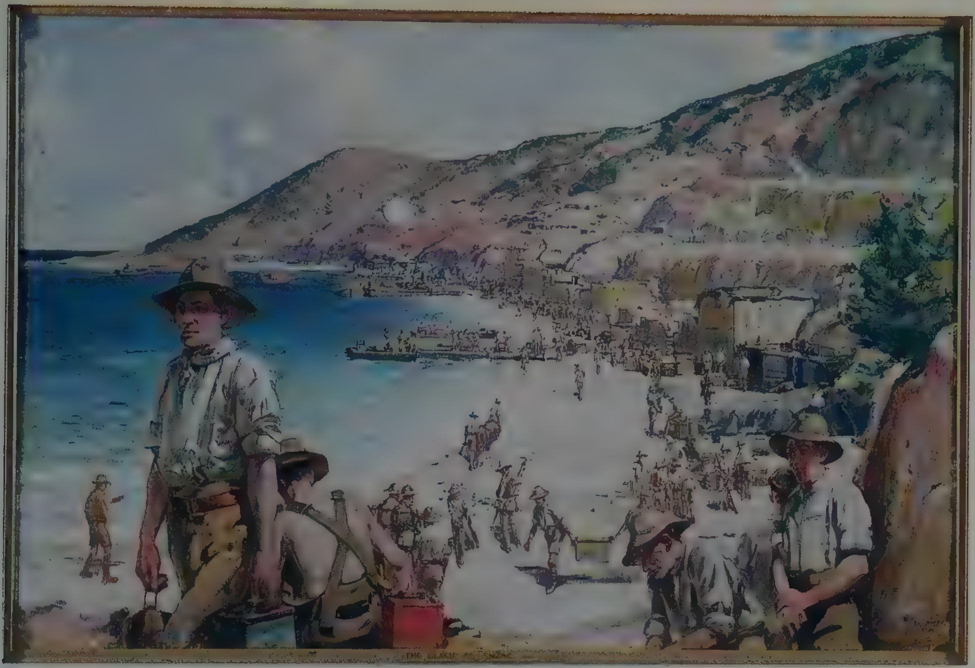
(Right) A large topographical map of the Gallipoli Peninsula showing the positions where the Anzacs landed and where they fought the Turks.

Australian War Memorial

Cape Helles

(Below) View of the 'Life on Anzac' section of the Gallipoli Gallery featuring field gun in the foreground.

Australian War Memorial



'The Beach at Anzac' a painting by F. R. Crozier, on display at the Gallery.

Australian War Memorial

The restored Diorama 'Lone Pine'. Fierce fighting in the trenches resulted in 2000 Anzac casualties in one four-day-long period.

Australian War Memorial

Life on Anzac

'Every Object Tells A Story' the travelling trunk shown in the foreground of this display belonged to a Nursing Sister and contains many of the original items.

Australian War Memorial

Australian casualties on Gallipoli

8,700 dead 19,000 wounded

Hall of Memory—Australian National War Memorial, featuring the spectacular dome shaped ceiling mosaic. The 5 metre statue on a marble plinth is in memory of The Unknown Soldier.

Australian War Memorial

THE DEFENCE FORCE

Royal Australian Navy

The RAN maintains and exercises a modern, well-equipped and highly-trained maritime force. The structure of this force is based primarily on the provision at sea of a balanced force group, consisting of surface warships, naval aviation and submarines.

Higher organisation

The Chief of Naval Staff has command of the RAN, subject to the command of the Defence Force by the Chief of the Defence Force. Principal staff officers to the Chief of Naval Staff are the Deputy Chief of Naval Staff, the Chief of Naval Operational Requirements and Plans, the Chief of Naval Personnel, the Chief of Naval Technical Services, the Chief of Naval Materiel and the Director General of Supply Navy. Other senior officers of the RAN include the Flag Officer Naval Support Command and the Flag Officer Commanding HM Australian Fleet.

Ships of the Royal Australian Navy

The Fleet, September 1984: *Stalwart*—destroyer tender; *Supply*—oiler; *Tobruk*—amphibious heavy lift ship; *Adelaide, Canberra, Sydney*—guided missile destroyers; *Perth, Hobart, Brisbane, Darwin*—guided missile frigates; *Yarra, Parramatta, Stuart, Swan, Torrens,* (*Derwent* decommissioned—undergoing modernisation at Williamstown)—destroyer escorts; *Vampire*—destroyer training ship; *Jervis Bay*—training ship; *Curlew*—coastal minehunter; *Moresby, Flinders*—surveying ships; *Cook, Kimbla*—oceanographic research ships; *Otway, Onslow, Ovens, Otama, Oxley, Orion*—submarines; *Assail, Fremantle, Launceston, Townsville, Warrnambool, Ipswich, Cessnock, Whyalla, Wollongong, Bendigo, Gawler, Geraldton, Dubbo, Geelong, Gladstone*—patrol boats; *Brunei, Tarakan, Wewak, Betano, Balikpapan*—heavy landing craft. Patrol boats *Adroit, Ardent, Aware, Bayonet,* and heavy landing craft *Labuan* are manned by RAN Reserve personnel.

Guided missile frigate, HMAS Brisbane.

Department of Defence

Fleet Air Arm

On 30 June 1984 the A4 Skyhawks and S2 Trackers ceased operations in accordance with Government decisions. The Skyhawks were purchased by New Zealand while the Trackers are awaiting disposal action. The two squadrons that operated these aircraft, VC724 and VC851, were disbanded on 31 August 1984.

The RAN currently operates five different types of helicopters and HS748 electronic warfare training aircraft from HMAS *Albatross*, the Naval Air Station at Nowra in N.S.W.

HS817 operates the Sea King MK50 helicopters in the anti-submarine role. HU816 operates Wessex helicopters in the utility role. HC723 operates UH1B in the utility and SAR roles, Bell 206 from HMAS *Moresby* survey support and the recently acquired AS305B Squirrels for interim FFG training tasks. The squadron also operates the HS748 aircraft.

The RAN operates Jindivik pilotless target aircraft from the Jervis Bay Range Facility in N.S.W. and in August 1984 the new and improved 700 series Kindivik aircraft were introduced into service.

Equipment for the Royal Australian Navy

The significant new equipment items received by the Navy in 1983–84 include:

- Three Fremantle Class Patrol Craft (HMAS *Geraldton, Dubbo,* and *Geelong*).
- One Oberon Class Submarine (HMAS *Orion*) from Modernisation.
- Two Tugs for HMAS *Stirling* (Quokka and Tammar).
- Recompression Chamber at HMAS *Penguin.*
- Five Squirrel helicopters.

Revised tenders were evaluated for Destroyer/Utility helicopters.

Tenders have been received from seven European submarine designers for a Project Definition Study relating to the future acquisition of submarines for the RAN.

Deliveries expected during 1984–85 include:

- Fourth Guided Missile Frigate (HMAS *Darwin*).
- Two Fremantle Class Patrol Craft (HMAS *Gladstone* and *Bunbury).*
- One River Class Destroyer Escort (HMAS *Derwent*) from Modernisation.
- Final Squirrel Helicopter.

Training and entry

RAN Staff College. The RAN Staff College located at HMAS *Penguin*, Balmoral, N.S.W., prepares RAN officers of Lieutenant Commander and Lieutenant rank for command and staff appointments. Two courses of 22 weeks duration are run annually, each course comprising 28 students, typically 20 Naval Officers, one officer each from the Army, RAAF, USN and RNZN, two Public Service Board officers and two Defence Co-operation Program students.

Officer Entry. The Royal Australian Naval College at Jervis Bay is the training centre for officers in the RAN. Applicants for permanent commissions (presently male only) must be under 20 years of age on 1 January of the year of entry and must matriculate to a university in an Australian capital city. Officer appointees specialise in Seamen, Engineering, Supply and Secretariat, or Instructor Branch. Appointees either complete a full-time degree course in Engineering, Science, Surveying or Arts at the University of New South Wales, or complete a Diploma of Applied Science at the Royal Australian Naval College. Applicants for degree studies must meet the entry requirements of the appropriate faculty of the University of New South Wales. Male and female applicants for short service commissions must be under 24 years of age on 1 January of the year of entry and have either matriculated to a degree course at an Australian university, College of Advanced Education, or Institute of Technical and Further Education, or achieve four passes at Year 12. Entry is also available to professionally qualified persons such as doctors, teachers, engineers and lawyers.

Sailor Entry. There are several available entry schemes, all of which are open to both males and females, depending upon an individual's age, educational standard, final employment and interests. New entry training is carried out at the following establishments:

- HMAS *Nirimba* at Quaker's Hill New South Wales is the primary establishment for all RAN trade training which includes courses for apprentices aged between fifteen and eighteen and direct entry tradesmen.
- HMAS *Cerberus* at Westernport, Victoria is the primary training establishment for all general entry, non-apprentice recruits aged between seventeen and twenty six. Recruits receive common basic training before progressing to category training courses.
- Advanced category training is additionally undertaken at various schools at HMAS *Penguin* and HMAS *Watson* in Sydney and the Naval Air Station *Nowra*, N.S.W. A number of specialist courses are conducted in the United States and United Kingdom.

Ship construction and repairs

There are two naval dockyards, one at Garden Island, Sydney and one at Williamstown, near Melbourne. A third yard at Cockatoo Island in Sydney Harbour is operated by Vickers Cockatoo Dockyard Pty Ltd (VCD) under agreement with the Australian Government. This company carries out considerable naval refitting work, particularly of submarines. In August 1979 the company was awarded a contract to construct a new replenishment ship for the RAN the keel of which was laid in August 1980.

Current construction projects include the last 2 Patrol Boats being built in Cairns NQEA and modernisation of the last Destroyer Escort being undertaken by Williamstown Naval Dockyard. An order was placed on Williamstown Naval Dockyard for construction of 2 FFG7 class Guided Missile Frigates. Construction of two prototype minehunter catamarans has begun at a new facility established by Carrington Slipways Pty Ltd, Newcastle.

HMAS *Success* (AOR-01) was launched in March 1984 and work continues on the fitting out of the vessel at Vickers Cockatoo Dockyard.

Australian Army

The Australian Army maintains a potential ability and readiness to conduct operations on land for the defence of Australia and, in co-operation with the other arms of the Australian Defence Force, shares a responsibility to deter aggression, to ensure the nation's security and to preserve its national interests.

Higher Organisation

Command of the Army is the responsibility of the Chief of the General Staff, subject to the overall command of the Defence Force by the Chief of the Defence Force. He has for his principal staff officers the Deputy Chief of the General Staff, the Chief of Operations, the Chief of Personnel, the Chief of Logistics, the Chief of Materiel and the Chief of the Army Reserve.

The Army is organised into three commands as follows:

- *Field Force Command* which commands all field force units of the Australian Army, both Regular and Army Reserve.
- *Logistic Command* which commands the principal logistic elements of the Army.
- *Training Command* which is responsible for all individual training and commands all Army training establishments and schools with the exception of the Royal Military College, Duntroon (which is under the command of the Chief of the General Staff).

Military Districts as listed below provide administrative support for the three commands, and, in certain cases act as intermediate headquarters for them:

- *1st Military District*—the State of Queensland.
- *2nd Military District*—the State of New South Wales, less those parts included in 3rd and 4th Military Districts.
- *3rd Military District*—the State of Victoria and part of southern New South Wales.
- *4th Military District*—the State of South Australia plus a portion of south-western New South Wales.
- *5th Military District*—the State of Western Australia, less the Kimberley Local Government area.
- *6th Military District*—the State of Tasmania.
- *7th Military District*—the Northern Territory plus the Kimberley Local Government area of Western Australia.

The military district headquarters also handle those matters in which both Commonwealth and State Governments are involved.

Training

Officer Training. The Army currently utilises a number of training sources to meet the requirements for commissioned officers. These are:

- *Royal Military College.* Located at Duntroon in the Australian Capital Territory, this college provides military and tertiary training for officers for the Regular Army.
- *Officer Cadet School.* Located at Portsea in Victoria, the school is a source of commissioned officers for the Regular Army. In 1985 females will also be trained at the Officer Cadet School as officers for the Regular Army.
- *Women's Royal Australian Army Corps School.* This school will close in December 1984 when all females will commence training for commissioned rank in the Regular Army at the Officer Cadet School, Portsea.

Note: With the commencement of the Australian Defence Academy courses in 1986 all of the above courses will be amalgamated and conducted at the Royal Military College with the exception of tertiary studies and some military training.

- *Officer Cadet Training Units*. These units are located in each Military District and are the major source of commissioned officers for the Army Reserve.
- *University Regiments*. University Regiments provide officer training for members of the Army Reserve. These courses are designed to meet the requirements of undergraduate enlistees.

Command and Staff College. Located at Queenscliff in Victoria, the college provides advanced training for selected Australian and overseas officers, to prepare them for command and staff appointments in the rank to lieutenant colonel.

Other Rank Training. Initial training for other ranks is conducted as follows:

- *1st Recruit Training Battalion*. Located at Kapooka N.S.W. this unit is the major training establishment for male recruits enlisted into the Regular Army.
- *Women's Royal Australian Army Corps School*. This school will close in December 1984 when all female recruits will commence training at the 1st Recruit Training Battalion, Kapooka.
- *Army Apprentices School*. Located at Bonegilla in Victoria, this school provides initial trade and military training for apprentice enlistees.
- *Army Reserve*. Army Reserve recruits attend initial training at courses conducted by either Training Groups located in most Military Districts or units.

Land Warfare Centre. The Land Warfare Centre at Canungra, Qld, conducts courses for both officers and other ranks as follows:

- promotion subjects;
- tactics and administration;
- individual battle skills; and
- sub-unit operations.

Other Schools. Army schools have been established to train officers and other ranks in up to date techniques of their own arm or service. Courses conducted include training, promotion courses and instructor development courses for members of both the Regular Army and the Army Reserve.

Equipment for the Army

Significant new equipment items received by the Army in 1983–84 included 543 eight tonne and 442 four tonne trucks, twenty one 155 mm M198 Howitzers, 10 MILAN missile systems, 150 sustained fire machine guns, nine earth augers, and 200 outboard motors. Deliveries expected in 1984–85 include a further fifteen M198 Howitzers, commencement of delivery of 676 general support machine guns (for completion in 1985–86), 175 eight tonne and 259 four tonne trucks, eight light wheeled tractors, forty-six 120 LPS compressors, 18 sets of 20 000 LPH water purification equipment and 400 mine detectors.

Royal Australian Air Force

The function of the Royal Australian Air Force is the conduct of operations in the air for the defence of Australia and Australian interests.

Higher Organization

The Chief of the Air Staff (CAS) is responsible to the Minister for Defence through the Chief of Defence Force Staff (CDFS) for command of the RAAF. Staff to assist the CAS in discharging his responsibilities and to provide higher command, policy and broad planning direction of RAAF activities is provided by Department of Defence (Air Force Office) (DEFAIR). The CAS is directly assisted in his decisions by the Chief of the Air Staff Advisory Committee (CASAC). The CASAC includes the Deputy Chief of the Air Staff, Chief of Air Force Operations and Plans, Chief of Air Force Materiel, Chief of Air Force Personnel, Chief of Air Force Technical Services, the Air Officers Commanding Operational and Support Commands, and the Director General Supply—Air Force. However, as this Committee has no executive authority, the CAS is not bound to accept its advice in reaching decisions.

RAAF Commands

The RAAF is organized into two functional commands, Operational Command and Support Command. The Command headquarters provides the intermediate level command and staff structure through which the directives and policies of the CAS are placed in effect. (Other RAAF elements not assigned to these Commands are responsible direct to DEFAIR.) The general function of Operational Command is the provision of combat-ready forces for employment in assigned roles and the conduct of air operations within Australia and overseas from within the resources allocated. Support Command is responsible for the provision of support, including basic training of personnel, logistics and the supply and maintenance of RAAF equipment.

Units of either Command, but primarily Operational Command, may be assigned by the CAS to make up part of other formally established forces, such as a joint force, a tactical air support force (TASF), a peacekeeping force or any other grouping necessary to meet a particular operational task or contingency.

The operational component is made up of the strike/reconnaissance, tactical fighter, maritime and air transport forces and is supported operationally by the ground defence force and an operational support unit. The support component comprises a training element, an administrative element, a logistics element and units with other miscellaneous support responsibilities.

Aircraft

The RAAF's strike/reconnaissance force is equipped with F-111A/C and RF-111C aircraft. The tactical fighter force, currently equipped with Mirage 1110/D, will begin re-equipping with F/A-18 aircraft in April 1985. RAAF maritime squadrons presently operate Orion P-3B and P-3C aircraft, however, replacement of all P-3B aircraft by P-3C aircraft is expected to be completed by late 1985. Transport aircraft currently in use by the RAAF are Hercules C-130E and C-130H, CC08 Caribou, Mystere 20, HS-748, Boeing 707, and BAC-111 aircraft. In addition, the air transport force operates the UH-1H Iroquois and AS-350 Squirrel helicopters and the CH-47C Chinook medium lift helicopter. Aircraft used by the support component for basic aircrew training are the CT-4A Airtrainer, Macchi MB-326H and HS-748.

Training

RAAF Academy. The RAAF Academy at Point Cook, Victoria is an affiliated college of the University of Melbourne. Cadets are selected principally for the General Duties Branch, and, after three years tertiary training, graduate with a Bachelor of Science degree. Graduates then complete a basic aircrew training course. Cadets selected for the Engineer Branch study the first year at the Academy and then attend the University of Sydney to graduate with a Bachelor of Aeronautical Engineering degree.

Engineer Cadet Squadron. The Engineer Cadet Squadron provides training for degree status in aeronautical, mechanical, electronic and communication engineering at the Royal Melbourne Institute of Technology. Electronic and communication engineering can also be taken at the Western Australian Institute of Technology.

Supply Cadets. Cadets selected for Supply Branch duties undertake a three year course at the Darling Downs Institute of Advanced Education in Queensland. They graduate with a Bachelor of Business degree.

Australian Defence Force Academy (ADFA). From 1986, ADFA will replace the RAAF Academy, Engineer Cadet Squadron, and Supply Cadet Scheme as the primary source of tertiary-qualified entrants to the General Duties, Engineer and Supply Branches of the RAAF Officer Corps. ADFA will be located in Canberra and will contain a College of the University of New South Wales.

Basic Aircrew Training. Flying training for RAAF pilots is conducted at Point Cook, Victoria and Pearce, Western Australia. RAAF navigators are trained at East Sale, Victoria and airman aircrew (flight engineers, loadmasters and air electronics analysts) undergo basic training at Edinburgh, South Australia. The RAAF also provides pilot and observer training for the RAN and pilot training for the Army and Papua New Guinea Defence Force.

Aircrew Operational Conversion. Conversion training to Mirage fighter aircraft and Orion Maritime aircraft is conducted by the respective conversion training squadrons. Conversions to other operational aircraft are conducted within the operational squadrons.

Officer Training. With the exception of those officers commissioned from the RAAF Academy, all officers entering directly (with or without tertiary qualifications), commissioned airmen and airwomen, aircrew (pilot and navigator), engineering and equipment cadets and undergraduate students undergo the Junior Officer Initial Course (JOIC) at the Officers' Training School, Point Cook, Victoria. Following graduation from the JOIC all graduates, with the exception of aircrew (pilot and navigator), immediately undergo the Joint Officer Executive Course at Officers' Training School, Point Cook.

Staff College. The RAAF Staff College located at Fairbairn, Australian Capital Territory, provides two residential staff courses. The Basic Staff Course of six weeks duration provides Command and staff training to officers of the rank of Flight Lieutenant. The Advanced Staff College Course of forty-three weeks duration provides staff training and higher service education to selected officers normally of the rank of Squadron Leader. This course is designed to broaden the students' professional background and to prepare them for Command and staff appointments of greater responsibility. A one year correspondence course covering military studies, international affairs and management is a compulsory prerequisite for entry to the advanced course.

Ground Training. The major ground training schools are the School of Radio at Laverton, Victoria and the School of Technical Training at Wagga, New South Wales. Both schools provide trade and technologist apprentice and adult trade training for technical personnel. They also provide post-graduate type training and specialist familiarisation courses on aircraft and telecommunications systems. Non-technical courses conducted at Wagga include catering, clerical, supervision and management and instructional technique.

Equipment for the Royal Australian Air Force

Forecasts regarding major capital equipment acquisitions are as follows:

- Deliveries of ten additional P3C aircraft to replace existing P3B aircraft commenced in October 1984. Five aircraft are scheduled for delivery in 1984-85. Eight of the ten RAAF P3B aircraft will have been transferred to Lockheed as trade-in for the new P3C's by the end of 1984-85.
- The first two F/A-18 aircraft for the RAAF are scheduled for delivery in the United States in October 1984. The first Australian assembled aircraft is scheduled for delivery in April 1985.
- New major capital equipment decisions approved by the Government during 1983-84 included, two additional B707 aircraft and initial air-to-air missiles for the F/A-18.

Deliveries expected during 1984-85 include:

- P3C Operational Flight Trainer (September 1984)
- Six Aerospatiale AS350B Light SAR Helicopters
- First of two F/A-18 Operational Flight Trainers
- Initial kits to modify F111C aircraft with Pavetack

Defence Science and Technology Organisation

The Department's defence science and technology establishments, collectively known as the Defence Science and Technology Organisation (DSTO), form the second largest research organisation in Australia with some 1,000 professional scientists and engineers in its total staff of about 4,400.

DSTO was established as a unified organisation in 1975 when the laboratories formerly in the Department of Supply were brought into the Department of Defence and under the direct control of the Chief Defence Scientist.

DSTO has a central office and one establishment in Canberra, representatives in London and Washington, and five major and three small establishments in five States. The Chief Defence Scientist, is supported in the Central Office by a Deputy, and policy and management staff. Scientific advisers are attached to Service headquarters in Canberra and some field headquarters.

The objective of DSTO is to help the Australian Defence Force take best advantage of modern technology. Major activities are: scientific input to Defence policy formulation; solution of Defence Force problems particularly where high technology or special features of Australian physical or military environment are involved; modification and extension of life of military equipment; development of indigenous equipment; evaluation of military equipment and procedures by trials, exercise analysis or operational research; support to defence industry; and international co-operation in defence research and Development (R & D). The DSTO also conducts mission-oriented research and enhances or maintains a technology base in key areas such as surveillance, aeronautics, weapons guidance and other electronic systems and countermeasures, explosives and propulsion.

There is considerable interaction between DSTO and its principal customers, the Defence Force and defence industry. Many companies benefit from close association with this R & D effort, some having facilities adjoining or co-located with the Defence Research Centre, Salisbury (DRCS).

Despite the laboratories' strong alignment with defence, their unique skills and facilities are available for non-defence tasks when priorities permit. Functions of the laboratories are briefly described below.

Aeronautical Research Laboratories, Fishermans Bend, Vic.—Provides research support primarily to the defence force and defence industry in fields including aerodynamics, aircraft materials, structural integrity and efficiency of aircraft, analysis and integration of systems, and on air-breathing propulsion systems and engine airframe integration and performance. It also assists civil aviation in some of these fields.

Advanced Engineering Laboratory, DRCS, S.A.—Engages in engineering feasibility studies and the development, design and manufacture of prototype systems and equipment in the mechanical and electronic engineering fields. It also provides engineering support to the Services and assistance to defence-related industry and maintains an advanced engineering technology base.

Armed Forces Food Science Establishment, Scottsdale, Tas.—Determines the energy and nutrient requirements of servicemen under all conditions in which they may be expected to operate and translates these needs into ration scales for static mess feeding and ration packs for combat purposes. AFFSE is part of the Materials Research Laboratories (MRL).

Central Studies Establishment, Canberra, A.C.T.—Carries out analytical studies on force structure, defence planning, equipment proposals, weapons systems, logistics and manpower.

Electronics Research Laboratory, DRCS, S.A.—Is concerned primarily with R & D in radar, radio, electronics, infra-red physics, optics, electro-optics, electronic warfare and surveillance.

Joint Tropical Trials and Research Establishment, Innisfail, Qld—Performs investigations and research on the effects of tropical environments on materials, equipment and electromagnetic wave propagation; and on mechanisms of degradation, ways of measuring degradation and the classification of tropical environments. Sponsored jointly by Australia and United Kingdom, JTTRE is part of MRL.

Materials Research Laboratories, Maribyrnong, Vic.—Provides research and development support to the Defence Force and defence industry in fields including organic and inorganic materials, metallurgy, explosives and ordnance, electromagnetic propulsion and terminal ballistics, high energy lasers and camouflage.

RAN Research Laboratory, Edgecliff, N.S.W.—Conducts operations research studies on maritime warfare, analyses maritime exercises, and undertakes research on underwater acoustics, oceanography, sonar and mine warfare. RANRL is part of Weapons Systems Research Laboratory.

Weapons Systems Research Laboratory, DRCS, S.A.—Responsible for R & D related to aeroballistic aspects of weapons and weapon systems, rocket and gun propulsion systems, combat data and display systems, guidance and control systems for weapons, underwater detection systems and the integration of systems.

Defence Research Centre, Salisbury, S.A.—Comprises the Advanced Engineering, Electronics Research and Weapons Systems Research Laboratories and provides for their administrative support. DRCS Administration Branch also provides general support services for the Defence Support Centre, Woomera.

Defence Support Centre, Woomera, S.A.—Provides an outdoor laboratory essential for weapon systems trials in support of R & D programs.

The DSTO Central Office in Canberra has two Divisions:

Science Programs and Administration Division provides policy advice on defence science and technology, advises on the formulation and management of the DSTO program of research and development, co-ordinates and analyses bids for resource programs for DSTO, monitors the allocation of resources to the DSTO activities and reviews performance against program objectives, advises on and develops administrative and financial policies for the DSTO, and advises on policy and procedures for professional staff recruitment, assessment and promotion.

External Relations, Projects and Analytical Studies Division fosters and co-ordinates DSTO contact with national and international science and technology agencies and the wider community, provides management and advice on major development projects, co-ordinates analytical studies throughout the DSTO and operates the Department's information services (Defence Libraries).

Natural Disasters Organisation (NDO)

NDO's primary peacetime function is to mitigate the effects of disasters. It does this, at the request of State and Territory counter disaster organisations, by co-ordination of physical assistance from the Defence Force and other Commonwealth Government Departments. Non-Government organisations also co-operate with NDO. States and Territories have complete responsibility for their own Counter Disaster Organisations. The NDO and State and Territory Emergency Services together constitute a core civil defence structure.

At the national level NDO develops and implements contingency plans to cope with requests by State/Territory counter disaster authorities for Commonwealth resources during disasters or for civil defence needs. A National Emergency Operations Centre located at NDO headquarters in Canberra provides a focal point for the co-ordination of national efforts when required and maintains communication with State and Territory authorities and Commonwealth Departments during disasters or potential disasters such as impact on Australian territory of space debris.

On behalf of the Australian Development Assistance Bureau, NDO acts in an advisory, planning and operational capacity for that Australian overseas disaster preparedness and relief which involves the use of Commonwealth Government resources.

A number of Commonwealth funded support programs for State/Territory Emergency Services are administered by NDO. These include—the supply of emergency type equipment such as radios, rescue vehicles, generators, flood rescue boats, etc.,—reimbursement of salaries of State/Territory full time organisers at regional level—subsidies on a limited dollar for dollar basis to provide accommodation for State/Territory Emergency Service Units at local government level—the provision of public information material and training handbooks.

Other programs which benefit all organisations having a counter disaster involvement and the community generally are—training at the Australian Counter Disaster College, Mt Macedon, Victoria, or by College mobile teams in State/Territories—maintenance of emergency broadcasting facilities.

DEPARTMENT OF DEFENCE SUPPORT

The Department of Defence Support was formally established (by the Governor-General in Council) on 7 May 1982, and draws together elements previously located in the Departments of Administrative Services, Defence, and Industry and Commerce as recommended by the Interim Report of the Defence Review Committee (the Utz Committee).

The Department of Defence Support has, within the overall defence, industry and employment policies, the goal of provision of optimum support for the nation's defence effort in peace and war and the development of an appropriate technological and industrial infrastructure. The Department is responsive to the requirements of the Australian Defence Force and the need to revitalise and further develop the infrastructure which supports that Force.

The Department in close co-operation with the Department of Defence:

- provides technical expertise and other forms of assistance to encourage and facilitate the development of modern and viable defence-related industries in Australia;
- ensures that Australian industry participates in the production of defence equipment to the maximum extent practicable;
- administers the Australian Offsets Program so as to stimulate technological advancement and broaden the capabilities of Australian industries of significance to this country's strategic and overall manufacturing needs;
- undertakes the purchase of goods and services for defence purposes;
- provides advice on the capacity, efficiency and capability of the Australian defence industry;
- manages the Government's defence facilities including munitions and aircraft factories, and dockyards; and
- consistent with the Government's defence and foreign affairs policies, markets defence and allied products and services to help maintain industrial capabilities of strategic significance.

The Department, at 30 June 1983, employed 15,644 people under the Public Service Act, the Supply and Development Act and the Naval Defence Act.

Budget allocations

Net outlay in 1984–85 is estimated to be $356.4 million, or $47.2 million below the 1983–84 total of $403.6 million.

The decrease is due to a number of factors including a tapering off of investment in plant and infrastructure associated with the manufacture of components and assembly of the F/A-18 Hornet tactical fighter aircraft, the end of the Nomad Aircraft production program, efficiency improvements in Government establishments; and introduction of commercial accounting practices at Williamstown Dockyard, Melbourne. The new procedures means that all indirect wages and other overheads previously funded by the Department's Budget allocation are charged to and recovered through receipts from customers' orders.

Taking the above factors into account, the 1984–85 Budget allocation of $356.4 million represents about the same level of funding in real terms as in 1983–84.

The Department is heavily committed to work associated with important defence projects including the F/A-18 fighter project, the A10 Wamira basic trainer aircraft and construction of two Frigates for the Royal Australian Navy. Work will also begin on production of an Australian-made 105 mm field gun for the Army in 1984–85.

These and other projects already involve considerable work in Australian industry and contribute further to the nation's expanding technological capability.

DEPARTMENT OF DEFENCE SUPPORT 1984–85 OUTLAYS BY FUNCTION

	$m	$m
Defence aerospace		71
F/A-18 Tactical fighter aircraft	25	
Wamira basic trainer aircraft	5	
Nomad aircraft	7	
RAAF/RAN aircraft overhauls and spare manufacture	10	
Lightweight box-launched IKARA	3	
Jindivik pilotless aircraft	1	
Other	20	
Defence shipbuilding		104
Garden Island Dockyard modernisation	21	
Repair and refit of ships	52	
Naval construction	11	
Maintenance of navy shore establishments	5	
Manufacture and repair of navy stores	12	
Williamstown Dockyard facilities for the Australian Frigate project	3	
Munitions		115
High explosives, propellant and rocket motor manufacture	30	
Ordnance small arms, ammunition and specialised engineering	64	
Filling and assembly of military explosives and pyrotechnic stores	20	
Manufacture of uniforms and protective clothing	1	
Industry and corporate services		66
Defence purchasing	8	
Marketing	1	
Industry assistance and manufacturing support	28	
Administration and other corporate services	29	
Total Defence Support 1984–85 outlay		356

The net outlay of $356.4 million includes investment of $98.3 million for plant and infrastructure in both the private sector and Government defence establishments.

Some major project investments include $14.5 million for the F/A-18 Fighter, $21.5 million for upgrading the Garden Island Dockyard, $3.6 million for facilities and plant at Williamstown Dockyard as part of the Frigates build, $5.6 million for upgrading of the small arms ammunition manufacturing facility at Ammunition Factory, Footscray, $1.3 million for the new nitroglycerine and paste manufacturing facilities at Mulwala Explosives Factory, and $1.9 million for occupational safety and health facilities at Munitions Filling Factory, St Marys.

Work will also start on the development of a new pyrotechnic manufacturing facility at Munitions Filling Factory, St Marys. The facility, which is estimated to cost $18.1 million, will dramatically improve the occupational environment at the factory. Expenditure in 1984–85 is estimated at $0.5 million.

Munitions Production

The Department of Defence Support maintains and operates nine factories for the manufacture of munitions and other defence material, including military clothing. The munitions factories undertake work in the fields of light, heavy and chemical engineering.

As well as achieving progress in the development and production of munitions for Australia the factories have helped to broaden the country's industrial base. They develop and adopt new manufacturing technology and a diverse range of production equipment is used to develop new production processes and apply new techniques.

Through the Department, the munitions factories have links with munitions manufacturers in the UK, Europe, and North America. The Department also maintains contact with ASEAN countries on defence production matters and provides some training for their engineers. Functions of the facilities are briefly described below.

Small Arms Factory, Lithgow, N.S.W.—manufactures small arms, weapons and kindred defence equipment.

Mulwala Explosives Factory, N.S.W.—manufactures acids, nitrocellulose and granular propellants.

Munitions Filling Factory, St Marys, N.S.W.—assembles and fills artillery ammunition, bombs, depth charges, warheads, rockets, mines and pyrotechnic items.

Albion Explosives Factory, Vic.—manufactures high explosives and some gun propellants, and recovery of concentrated acids.

Australian Government Clothing Factory, Coburg, Vic.—manufactures uniforms and other clothing for the defence services and other government departments.

Explosives Factory, Maribyrnong, Vic.—produces rocket motors, gun propellants, explosive devices, special paint products and undertakes chemical process design and installation.

Ordnance Factory, Maribyrnong, Vic.—manufactures ordnance, projectiles, heavy forgings, bomb and rocket motor components, electrical generators, fabrications and test equipment.

Ordnance Factory, Bendigo, Vic.—manufactures ordnance and gun mounting systems, heavy engineering products for both defence and the private sector, ships shafting and propulsion systems.

Ammunition Factory, Footscray, Vic.—specialises in the production of small arms ammunition, cartridge cases, small calibre projectiles and fusing mechanisms for gun ammunition.

Defence Aerospace

In aerospace matters the Department's objectives, within Government policies, are to:

- develop and maintain an industrial capability in the fields of aircraft, guided weapons and electronics-communications;
- co-ordinate and direct the operation of Government aerospace facilities and programs; and
- implement related policies.

In the case of the aircraft, guided weapons and electronics-communications industries, the Department has responsibilities of a wide nature, involving provision of advice and oversight of the development of capacity and capability in the private sector as well as the government establishments involved. Major aerospace activities include:

- analysis of defence requirements for manufactured aerospace goods and associated services and the assessment of the capability of the Australian aerospace industry to meet these requirements;
- development of the industrial capability and capacity to meet current and future government requirements for manufactured aerospace goods; and
- development and introduction of improved production practices and techniques in government-owned aerospace establishments and their promotion in the Australian manufacturing industry.

Government aerospace facilities are:

Government Aircraft Factories (GAF), Fishermens Bend and Avalon, Vic.—GAF is involved in the design, development, manufacture, assembly, modification and test of military and civil aircraft and guided weapons. Current activities include F/A-18 Fighter Aircraft, Basic Pilot Training Aircraft, Ikara anti-submarine weapon system, Jindivik target aircraft, Mirage support and manufacture of airframe components for export against offset orders.

Aircraft Engineering Workshop (AEW), Pooraka, S.A.—AEW provides a quick response engineering jobbing workshop capacity for the Services and has capability in the areas of fine machining, electroplating, heat-treatment, welding and sheet-metal fabrication to aircraft manufacturing specifications.

Guided Weapons and Electronics Support Facility (GWESF), St Marys, N.S.W.—GWESF provides technical support to the Services in testing and calibration of a wide range of electronic items and also provides independent facilities and technical expertise to assist Defence industry.

Defence Shipbuilding

The prime objective of the Department's Defence Shipbuilding function is to develop and maintain an effective and efficient capability for construction, repair, refit and modernisation of naval ships, small craft and submarines in government dockyards and in the private sector.

To achieve this objective the Department undertakes the following major activities in co-operation with the respective functional areas in Department of Defence:

- manages and monitors dockyard operations, including quality assurance;
- assesses and fosters industry capability and capacity in the area of Defence Shipbuilding; assists in the development of Shipbuilding and associated technology in Australian industry;
- participates in the planning for major new projects for naval shipbuilding and repair;
- plans the equipment, services and physical resources to be installed in the dockyards; monitors dockyard modernisation activities and undertakes asset control and maintenance scheduling at Cockatoo Island Dockyard.

The Department of Defence Support manages the Dockyards at Garden Island and Williamstown, and is responsible for the Cockatoo Island Dockyard which is leased from the Commonwealth and operated by Cockatoo Dockyard Pty Ltd.

Garden Island is principally concerned with refitting, repair and modification and is undergoing major modernisation to improve its ability in these areas and to create a fleetbase which is able to cope with the demands of modern naval vessels and systems.

Williamstown Dockyard, planned as the construction yard for destroyer size ships, is also being modernised for the building of FFG type frigates for the Royal Australian Navy.

All updates and modifications of submarines are carried out at Cockatoo Island Dockyard and the new underway replenishment ship, HMAS *Success* is in the final stages of construction.

Defence Purchasing

The Department of Defence Support is the Purchasing Authority for all defence supplies of goods and services (except those common use items falling within the responsibility of the Department of Administrative Services), purchased in or from Australia from commercial suppliers above the prescribed public tender threshold (currently $10,000).

The Department undertakes defence purchasing through:

- Major Contracts Branch (located in Central Office) for major defence equipment procurements (usually those over $5 million, but also other requirements of smaller value but with great complexity of other special features), and
- Defence Purchasing Regional Offices located in each capital city for all other defence purchasing.

Activities undertaken include many significant contractual arrangements conducted recently for the Department of Defence, among them: the production of Barra sonobuoys, Raven Phase 3A (radio system); Waler Phase 1 (light armoured vehicle); prototype Minehunter catamarans; Basic Pilot Trainer Aircraft; and provision of production infrastructure items and overseas training of industry personnel in support of the F/A-18 Tactical Fighter Project.

Australian Offsets Program

The Department of Defence Support has overall responsibility for the administration and future development of the Australian Offsets Program.

Where Australian industry is not able to meet the Government's requirements for equipment and services and overseas purchases are required, overseas suppliers must provide local industry with viable offsets opportunities.

The objectives of the Program are to secure workload which will broaden the capabilities of industry which is of technological or defence significance to Australia, to stimulate technological advancement and to provide new employment opportunities within Australian industry.

To date the Program has been instrumental in obtaining more than $600 million worth of offsets work for Australian industry. Opportunities currently exist for more than $1,000 million worth of offsets work over the next 10 years.

CHAPTER 5

INTERNATIONAL RELATIONS

The basic principles underlying the shaping and conduct of Australia's foreign policy are that Australia is a significant middle-level power with democratic institutions; having strong affiliations with other Western countries but an emerging Asia-Pacific identity through its increasing regional involvement.

Australia's prosperity is largely dependent on trade; it is geographically remote from its founding nation, principal migration source countries, major markets and its main allies; it is a relatively affluent and resource rich country in a populous, developing and rapidly changing region.

Initially, Britain and the Commonwealth countries were the central elements of Australia's foreign policy and activity. Later, partly as a consequence of the vital role played by the United States of America in the Pacific during the Second World War, close relations were also developed with that country. These links, and links with Western Europe, remain important factors in Australian foreign policy. Australia inherits its national traditions from Western European countries, conducts a major part of its trade with these countries and with Japan and the United States, and obtains significant technology and capital for its development from them.

Australia is located in a region which includes the politically, economically and strategically significant countries of East Asia, South Asia, the Indian Ocean and many newly independent nations of the South Pacific. Awareness of the importance of these neighbouring states has led successive Australian Governments to seek to promote and maintain friendly and co-operative relations with them, not only to ensure the stability and security of the region, but also to develop mutually profitable trade, investment, exchange of technology, and co-operation in the development process. Australia gives special attention to its relations with China, Japan, ASEAN (the Association of South East Asian Nations) and its members, New Zealand, Papua New Guinea and the other South Pacific states.

Australia has also been concerned at the increasing instability in the world strategic environment, particularly in South West Asia, Indo-China, the Middle East and Africa, and also at the urgency of the need for effective arms control and a reduction in East/West tensions. Australian foreign policy is committed to an independent constructive approach to those central issues within the framework of the Western alliance.

International issues (economic, disarmament, resources, human rights, refugees, North-South relations, etc.) and new concepts of national interest have assumed importance together with an increasing recognition of the growing interdependence of the world community. This is reflected in economic issues, disarmament and arms control and human rights becoming priorities in Australia's foreign policy. Australia recognises the importance and growing complexity of economic issues, particularly the slow recovery of world trade and economic development and the major problem of world debt affecting both developed and developing countries. The growing interdependence of national economic and foreign policies and the increasing vulnerability of Australia's economy to international trade and other developments will remain at the heart of Australia's foreign policy concerns for some while to come. Australia places a high priority on its participation in the resolution of these global issues in the United Nations and other multilateral forums, including the Commonwealth.

The United Nations

Successive Australian Governments have reaffirmed their support for the United Nations (UN), its Charter and the work being done in the various specialised agencies. Within the United Nations and other organisations, Australia seeks to work toward the solution of the pressing problems confronting humanity today.

Australia is involved in a wide range of United Nations matters and has served on many United Nations bodies. It was a member of the Security Council in 1973–74. In October 1984, Australia was elected for a term, in 1985–86, on the Security Council. In 1975, a long period of membership on the Trusteeship Council came to an end with the independence of Papua New Guinea. It is a member of the Special Committee on Decolonisation and the UN Council for Namibia.

Australia also supports the work of the specialised agencies and subsidiary bodies in such areas as development assistance, drug control and n rights. It is an active participant in the economic work of the United Nations through such forums as the UN Conference on Trade and Development (UNCTAD) and has been re-elected to the UN Development Program (UNDP) Governing Council for three years from 1 January 1983. Australia is a member of the UN Commission on Narcotic Drugs, Commission on the Status of Women and Commission on Human Rights. It is on the Executive Board of the UN Children's Fund, the Governing Council of the UN Environment Program (UNEP) and is a long-standing serving member of the Governing Body of the International Labour Organisation. Australia is a member of several of the UN Educational, Scientific and Cultural Organisation's Governing Councils and its prominent role in world refugee assistance is reflected in membership of the Executive Committee of the UN High Commissioner for Refugees.

Australia has been involved in almost all UN peacekeeping activities since these began. Australia has also contributed its assessed share of the costs of all UN operations and also makes voluntary contributions as well as providing personnel and equipment for peacekeeping forces.

Australia is also fully involved in the work of the UN on disarmament and outer space, and is a member of the main subsidiary bodies working in these areas.

Australia accepts the compulsory jurisdiction of the International Court of Justice and plays an active role in bodies concerned with the development of international law.

The Commonwealth

The Commonwealth is a distinctive and unique framework bringing together about a quarter of the world's population. Australia takes part in the broad range of Commonwealth activities. It was host to the first regional Heads of Government meeting in Sydney in February 1978, and hosted the Commonwealth Heads of Government Meeting (CHOGM) in Melbourne in September-October 1981.

South East Asia

Australia shares with South East Asian countries a concern for peace and the economic and social development of the region. The Australian Government is in regular contact and consultation with South East Asian governments on a wide range of issues. Contacts with them have widened beyond the scope of official activity to include consultation between private sector organisations, co-operation in trade and resources, the export of Australian expertise and technology in joint enterprise arrangements, and direct Australian investment. Benefits from this growing economic relationship are mutual, and the relationship is essential to Australia's economic and political future in its own region.

The range of personal contacts with the region continues to widen, as tourism develops, migration from Asia to Australia grows, student exchanges increase, and academic studies and press coverage of regional affairs expand.

Australia has particularly welcomed the progress made by ASEAN and its contribution to the promotion of regional co-operation. Australia has a significant interest in helping to ensure that ASEAN succeeds in generating economic growth and political stability and supports its wish to prevent domination of the region by any major power. Australia has entered a program of economic co-operation with ASEAN. The Australian commitment to the program now stands at $70.6 million. Expenditure in 1983–84 was $12.9 million and in 1984–85 is expected to be $13 million.

For a number of years Australia has also played a major part in assistance with the Indo-Chinese refugee problem.

Asia

Australia believes that peace and prosperity in Asia depend largely on the ability of countries in the region to co-operate to secure these objectives and in ensuring that no major power, either inside or outside the region, is able to exert an undue influence in the area.

Australia's primary interest and concern in Asia has long been reflected in its vigorous role in regional associations and organisations such as the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Colombo Plan, the Asian Development Bank and in many other organisations, both private and government.

Japan is by far Australia's largest trading partner, with total trade now in excess of $11,000 million a year and is a significant source of investment funds. The relationship with Japan is based on complementary economic interests and shared perceptions of international issues. Relations in political, cultural, scientific, sporting and other areas are being continually fostered by both Governments. Among a number of high-level visits between the two countries were those by the Prime Minister, Mr Hawke, to Japan in January-February 1984 and the Minister for Foreign Affairs, Mr Hayden, in July 1983 and in April 1984; and a visit to Australia by the Japanese Minister for International Trade and Industry, Mr Okonogi, in September 1984.

Australia attaches a high priority to its relations with China. The bilateral relationship has expanded rapidly in the last few years, and now covers a broad range of contacts in many areas. Trade is substantial, and there are exchanges in culture, science, agriculture, education, legal affairs, business management and industrial technology, and the media. There is a development assistance program under the Techncial Co-operation agreement. The Australia–China Council sponsors the expansion of bilateral contacts. Australia and China engage in frequent political consultations, a process which has been facilitated by an exchange of high-level visits. In April 1983 Australia hosted a visit by China's Premier, Mr Zhao Ziyang, the first Chinese Head of Government to visit Australia, a visit reciprocated by Prime Minister Hawke in February 1984. The Minister for Foreign Affairs, Mr Hayden, visited China in August 1983 and there have been visits by six other Australian Ministers this year.

Australia's relations with the Republic of Korea are firmly established. The economic partnership is one of Australia's most important. High-level visits are now very regular.

Australia is developing its relations with Laos and is providing a small program of development assistance. Australia maintains normal diplomatic relations with Vietnam but the bilateral relationship has been affected by Vietnam's military occupation of Kampuchea.

Australia also recognises the strategic, economic and political importance of the countries of South Asia. Although outside Australia's immediate area of strategic concern, these countries sit astride major Australian shipping, civil aviation and communication links. Australia has developed close relations with all the countries of the region, including India, which is not only the most powerful country in the Indian Ocean but also the world's most populous democracy, a leading member of the Third World and among the world's largest in terms of industrial output. Australia provides technical and developmental assistance to all the countries of South Asia.

South Pacific

Australia looks to consolidate and to expand its co-operative activities to promote the stability, welfare, harmony and economic development of the region. Australia has moved deliberately to develop and extend its bilateral relations with the Island countries and now has nine diplomatic missions in the area. Aid programs are substantial in size and varied in nature, covering all types of infrastructure and other development projects. The Australian Government has approved a new five-year forward indicative planning figure for the aid program to the region (exluding Papua New Guinea) which started in 1983-84. A further $4.382 million for defence co-operation projects in the countries of the South West Pacific was allocated for 1983-84. In 1983-84 $6.178 million has been allocated.

As the largest of the South Pacific Island States, Papua New Guinea (PNG) has played, since independence, an influential and leading role in the region. Australia and PNG have a close and warm relationship which encompasses a broad range of Government and non-government activities. Australia's aid commitment to PNG is substantial and a second five-year aid agreement was announced in September 1980. Australian assistance to PNG will amount to $317 million in 1984-85. The defence co-operation program will provide grant assistance of a further $17.82 million.

In 1983, Australia hosted the 14th South Pacific Forum and in 1984 took part in the 15th Forum, held at Funafuti, Tuvalu. Australia was a foundation member of the South Pacific Commission, the South Pacific Forum and the South Pacific Bureau for Economic Co-operation and has become a party to the convention establishing the Forum Fisheries Agency. Australia takes part in these an the many regional meetings held in the Pacific to act on a broad range of issues of common interest. Besides contributions to ESCAP, SPEC and the SPC, financial support for other regional and international programs developed in the South Pacific is being maintained in 1984-85. Australia has also established a fund to promote the preservation and development of Pacific cultures. Australia and New Zealand have entered into a non-reciprocal preferential trade agreement in favour of South Pacific Forum States: the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA).

Relations between Australia and New Zealand are particularly close. They are based on shared history, close economic ties, and common problems in dealing with the current international political and economic environment. The implementation in 1966 of the New Zealand-Australia Free Trade Agreement (NAFTA) established a special trading relationship between the two countries. Negotiations on an agreement to replace NAFTA began in 1980. These led to the signing in March 1983 of the Australia New Zealand Closer Economic Relations-Trade Agreement designed to assist both countries to further expand their mutual economic and trading links.

The Australia New Zealand Foundation was funded following discussions between the then Prime Minister of Australia, and the then Deputy Prime Minister of New Zealand, in March 1978. The aim of the Foundation is to help strengthen relations between Australia and New Zealand by encouraging study and discussion of issues of interest to both countries and promotion of increased cultural and other exchanges. The Foundation is government-funded but is administered by an independent Executive Board.

The Americas

Australia has a long-standing and close relationship with the United States which extends across the whole range of the national life of both countries. Government-to-Government relations are only one part of a larger and more extensive interaction between the two countries which derives from common experiences, culture and language. In general, relations between the countries are warm and co-operative, with a high degree of official political consultation and a close personal relationship between the political leaders. The affinity between Australia and the United States is underpinned by substantial economic and commercial relations which, however, have occasional difficulties. The United States has been in recent years Australia's largest supplier of imported items and is our third largest export market.

Canada is, to a greater degree than other nations, a country comparable with Australia in terms of institutions and traditions, geographical size, economic standing and international outlook. The genuine goodwill established between the two countries has allowed Canada and Australia to co-operate on the achievement of mutually desirable objectives, reflecting individual national interests and competition in certain commercial fields.

Developments in the Caribbean and the Latin American region are of increasing importance to Australia, and resident missions have been established in Jamaica, Mexico, Chile, Argentina, Brazil, Peru and, most recently, Venezuela. Australia has observer status at the annual General Assemblies of the Organisations of American States. In December 1983, the Minister for Foreign Affairs, Mr Hayden, announced that agreement had been reached for the establishment of diplomatic relations with El Salvador, Nicaragua and Honduras, on the basis of non-resident accreditation.

Europe

Australia attaches considerable importance to maintaining warm and friendly relations with the countries of Western Europe, with the European Community and its institutions, including the European Parliament.

Bilateral relations with individual Western European countries continue to be of considerable importance. These relations are promoted by the very close cultural and historical links we share with these countries and are reinforced by the presence in Australia of large numbers of people of recent European origin. Economic ties between Australia and the major Western European economies are likely to be significantly strengthened with the increase of European investment in Australia and the increase in the export of Australian energy resources to Europe.

The European Community (EC) is Australia's second largest trading partner and a major source of investment funds and scientific and technological expertise. The 1979 agreement with the EC over the Multilateral Trade Negotiations (MTN) has gone only some way towards resolving trading difficulties. Australia remains committed to seeking the development of a closer and mutually advantageous relationship with the EC based on our wide range of common interests.

The establishment of an EC Commission Delegation in 1981 was followed by a visit of the Commission President in 1982 and the third round of regular EC-Australia ministerial consultations in Canberra in 1983. The third round established mechanisms for regular consultations on the sensitive issues of agricultural commodities and raw materials.

The low voter turnout at the second direct elections for the European Parliament in June 1984, tends to suggest that the Community countries are already beginning to take the Parliament somewhat for granted as a permanent political institution, unifying interests which transcend national boundaries. The Parliament is becoming increasingly important in Community affairs, particularly in the budget process. Since its formation three years ago the European Parliament Delegation for Relations with Australia has had regular contact with the Australian Parliament, through a visit by the Australian Speaker in November 1983 and by Australian Parliamentary delegations in October of each year.

In May 1983 the Government announced the results of its review of relations with the Soviet Union. The sanctions imposed by the previous government in protest at the Soviet invasion of Afghanistan were lifted, and the Government decided to pursue a more pragmatic relationship. The Government has made it clear, however, that it continues to condemn the continuing Soviet military presence in Afghanistan. Trade relations were placed on a normal footing with a meeting of the Mixed Commission in Moscow in October 1983. In May-June 1984 Mr Hayden visited the USSR, the first such visit by an Australian Foreign Minister for nearly 20 years. Steps are being taken to resume exchanges under the Cultural Agreement and the Agreement on Scientific and Technological Co-operation, signed in 1975.

Eastern Europe is a sensitive area in world affairs and Australia has an interest in the maintenance of a balanced East-West relationship. Eastern Europe also has significant potential for Australian exports, particularly commodity exports, although there have been significant debt problems emerging in some Eastern European countries in recent years. Another aspect of our relations with Eastern Europe is the presence in Australia of large ethnic groups from countries of the region which have substantial links with their country of origin, notably in cultural matters.

Australia has recently expanded its relations with Eastern Europe, with visits to the region by a number of Ministers. The Government has decided to open an Embassy in Budapest and to establish diplomatic relations with Albania on the basis of non-resident accreditation.

The Middle East

Australia has substantial trading interests in the area and long-standing friendly relations with the Arab nations, Iran and Israel. Australia supports efforts to bring about negotiation of differences in the region, e.g. in such areas of conflict as the Arab-Israel dispute, the problems facing Lebanon and the Iran-Iraq war. Australia supported the Camp David accords and the peace treaty between Israel and Egypt, seeing them as a first step towards a just, lasting and comprehensive settlement of the Arab-Israel dispute. Australia supports all efforts to negotiate the dispute, and believes a settlement should be based on UN Security Council Resolution 242 (which, inter alia, recognises the right of all States in the area to live in peace within secure and recognised boundaries and calls on Israel to withdraw from territories captured in 1967) and on recognition of the central importance of the Palestinian issue, including the right of self-determination for the Palestinian people including the right, if they so choose, to independence and the possibility of their own independent State. The Government recognises, however, that any such arrangement will depend on decisions involving people of the immediate region. The Government has agreed to an extension of the participation of an Australian contingent in the Sinai Multinational Force and Observers (MFO), which monitors the Egypt-Israel border area, for a maximum period of two years from April 1984, to allow a replacement to be found.

Africa

Australia maintains a broad range of contacts with independent black African States, and is closely concerned with developmental and humanitarian issues affecting Africa. It maintains a policy of no racial discrimination and strong opposition to apartheid including support for the Commonwealth statement on Apartheid in Sport (The Gleneagles Declaration). Australia supports international efforts to bring pressure to bear on the South African Government to abolish apartheid, which it regards as an inhumane practice and the root cause of confrontation and violence in Southern Africa. Australia maintains correct but cool diplomatic relations with South Africa. Australia also supports international action to bring Namibia to independence by the negotiated settlement in accordance with United Nations Security Council Resolution 435. There has been a significant growth of aid to Africa in recent years. While aid is given to some 20 recipients in Africa, the greater proportion goes to the Commonwealth member States in East Africa. Assistance is also given to the region through the Southern African Development Co-ordination Conference (SADCC).

Indian Ocean

On 17 January 1984, the Minister for Foreign Affairs, Mr Hayden, announced that the Government had approved guidelines for a comprehensive and integrated policy approach to Indian Ocean issues. Under the guidelines Australia will: act in accordance with its status as an independent but aligned Indian Ocean littoral State; continue to play an active role in the United Nations Ad Hoc Committee on the Indian Ocean; maintain the goal of the resumption of United States-Soviet talks on arms limitations in the region; and support other arms limitations initiatives where these accord with Australia's assessment of its own interests and those of the region as a whole. Australia will also seek to give greater attention to the development of relations with Indian Ocean island States, and, to a lesser extent, East African States.

ANZUS

Following a detailed review of the ANZUS Treaty by the Australian Government, including a re-examination with its ANZUS partners at the 1983 ANZUS Council Meeting in Washington, the alliance was reaffirmed fundamental to Australia's national security and foreign and defence policies.

Nuclear issues

Australia's strong commitment to effective disarmament and arms control is reflected in Australian support for the international non-proliferation regime. Australia ratified the Nuclear Non-Proliferation Treaty (NPT) in 1973 and encourages universal adherence to it. Australia strongly supports the NPT and is active in preparations designed to ensure the success of the third review conference of the NPT to be held in 1985. Australia is also a member of the International Atomic Energy Agency (IAEA) and, as a member of the IAEA Board of Governors, has important responsibilities for the effectiveness of IAEA activities and supports endeavours to strengthen the IAEA's international safeguards system. Australia plays an active role in IAEA committees and in other international bodies dealing with the clarification of multilaterally agreed guidelines on export controls for non-proliferation purposes.

The nuclear safeguards arrangements governing the export and subsequent use of Australian uranium were reviewed in 1984 in a report commissioned by the Government and undertaken by the Australian Science and Technology Council (ASTEC). The Government will consider the recommendations arising from the ASTEC report and will make its responses in due course. In the interim, exports of Australian uranium under existing contracts are being permitted—except in the case of France—in accordance with the conditions set out in binding bilateral nuclear safeguards agreements with customer countries. These conditions include an undertaking not to use Australian origin nuclear material for any military or explosive purpose, and the acceptance of IAEA safeguards in order to verify that undertaking.

Australia is also a member of the Nuclear Energy Agency (NEA) of the Organisation for Economic Co-operation and Development (OECD). Australia values the NEA as an essentially technical forum for international consultation on nuclear issues.

Disarmament and arms control

Australia is energetically promoting nuclear arms control and disarmament objectives in the United Nations and the Conference on Disarmament in Geneva. In July 1983 the Government announced the appointment of Australia's first Ambassador for Disarmament whose principal role is to represent Australia on the Conference on Disarmament and at other disarmament forums. Australia attaches particular priority to the earliest possible conclusion of a treaty banning all nuclear testing in all environments and is working to uphold and strengthen the Nuclear Non-Proliferation Treaty, particularly in the lead-up to the third review conference of the Treaty in 1985. Although not a party to any negotiations on limitations and reductions on nuclear weapons between the United States and the USSR, Australia continues to encourage genuine dialogue and a readiness to find accommodation with the aim of stable, mutual deterrence. It has called for an early resumption of these negotiations. Australia seeks a balanced, mutual and verifiable freeze on the production, testing and deployment of nuclear weapons, which would be followed by deep reductions in nuclear weapons stockpiles.

Australia also accords priority to a number of non-nuclear disarmament questions. It is committed to supporting the conclusion of a fully effective and verifiable chemical warfare convention that would outlaw the use of chemicals as weapons. Australia will be active in efforts aimed at strengthening the 1972 Biological Weapons Convention by improving its verification provision. Australia is pressing for international agreements to prevent an arms race in outer space.

Within the Pacific region Australia has taken the initiative to revive the proposal for a South Pacific Nuclear Free Zone and is Chairman of the Working Group appointed by the South Pacific Forum to examine the proposal and draft a Treaty. Australia has acceded to the following disarmament and arms control agreements: the Partial Test Ban Treaty, the Geneva Protocol (in the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases and of Bacteriological Weapons), the Outer Space Treaty, the Sea-Bed Arms Control Treaty, the Nuclear Non-Proliferation Treaty, the Biological Weapons Convention, the Environmental Modification Convention, the Antarctic Treaty, and the Inhumane Weapons Convention.

Economic relations

In recent years economic factors have assumed increasing importance in international relations. This is largely due to the growing economic interdependence between nations and the need for global co-operation to solve the problems facing domestic economies, particularly at a time of world recession.

Australia's interest in international economic developments derives from the overall importance of trade to Australia and its historical reliance upon a substantial amount of capital inflow to offset balance of payments deficits on the current account.

The economic recession of the world economy in the 1970s and 1980s has led to the growth worldwide of protectionist pressures and moves towards seeking solutions to economic problems through bilateralism and the formation of trade blocs. The Australian Government has endeavoured to counter these harmful trends and to encourage freer trade through its involvement in forums such as the General Agreement on Tariffs and Trade (GATT). GATT is the principal multilateral institution for negotiation of reduction in trade barriers in pursuit of the further liberalisation of world trade. Australia has consistently supported a reduction in barriers to trade and the concept of an open and multilateral trading system.

Australia also has a strong commitment to the freedom of international capital flows. Because it is a net capital importer, it is of considerable importance to Australia that the international system be increasingly open and adaptable to facilitate the global exchange of goods, services, labour and capital. This is all the more so in view of the significant challenges imposed on the international monetery system by the dramatic changes in the world economy during the past decade.

Because of its particular characteristics and location, Australia is vitally dependent on its aviation, shipping and communication links with the rest of the world. Civil aviation has assumed particular prominence in Australia's foreign policy considerations in recent years, notably in its relations with countries in the region. The maintenance of Australia's air links with Europe and the United States, furthermore, involves dealings not only with the countries to which Australia's international airline, Qantas, operates these services, but also with the countries which Qantas overflies on these routes or where it enjoys stop-over rights.

A recent factor contributing to moves for changes in the world economy has been developing-country demands for a New International Economic Order (NIEO) more geared to their needs and development aspirations. In 1980 and 1981 a major preoccupation of the UN General Assembly was the proposal to hold global negotiations on international development issues. They were again debated in 1982. Agreement has not been reached, however, on the agenda and procedures for the negotiations. In 1983 the Non-Aligned Summit at New Delhi devoted a significant part of its financial communique to a call for the implementation of a set of 'Immediate Measures' as short-term emergency help for developing countries, while continuing to work for Global Negotiations in the longer term. These 'Immediate Measures' were taken up, largely unsuccessfully, at UNCTAD VI in Belgrade in June 1983. Subsequent attempts to pursue this matter have been made at meetings such as at the 1983 UN General Assembly.

Australia also continues to attach great importance to its traditional relations with other developed countries, which continue to be Australia's principal trading partners. Membership of the OECD enables Australia to take part in consultations on a wide range of policy issues and on issues of international concern with countries experiencing similar social and economic circumstances. The Organisation's role in developing its members' policies on relations with developing countries, including the North/South dialogue, also makes it an important element in Australia's foreign policy. Australia is a member of the International Energy Agency, which has developed into the major forum for continuing consultation and co-operation on energy matters between most of the major industrialised nations which are Australia's principal trading partners.

Despite the importance of Australia's relations with its traditional trading partners, considerable concern has been expressed in recent years at the growing imbalance of trading opportunities which has unduly restricted the access of important Australian agricultural products to European Community markets. Australia has also been concerned about the effect of EC export subsidies on the returns from Australia's commodity exports to third world countries. Policies are being pursued to help resolve these problems.

North-South relations

Australia seeks to play a constructive role in the dialogue on international economic development issues between the developed ('the North') and developing countries ('the South'). Australia's approach to North-South issues is based on the belief that not only are there compelling humanitarian reasons for finding solutions to the many problems facing the world economy and the developing countries in particular, but also that the degree of interdependence in the world economy makes progress imperative for international stability and economic growth. Australia's approach is also influenced by the predominance of developing countries in the region and by the fact that Australia shares a number of economic interests with the developing countries, e.g. it is a leading producer and exporter of a wide range of primary products and an importer of capital and technology.

Australia has taken a forward position on a number of North-South issues. It has encouraged changes to the international economic system sensitive to the views of developing countries, but which also would serve to promote orderly development, political stability and the full participation by all countries in an open international trade and payments system.

Law of the Sea

Australia participated in all sessions of the Law of the Sea Conference, the largest and potentially the most important conference in the history of the United Nations, involving major strategic, economic, transport, scientific and environmental issues. A Convention was adopted on 30 April 1982 and opened for signature on 10 December 1982. Australia signed the Convention on that day. The text includes articles on the system of exploration and exploitation of the deep seabed beyond the limits of national jurisdiction; extension of the territorial sea to 12 nautical miles; establishment of coastal state sovereign rights in the living and non-living resources of an "exclusive economic zone" of 200 nautical miles; recognition of coastal state sovereign rights over the exploration and exploitation of the natural resources of the continental shelf, defined in terms of the natural prolongation of the land-mass; protection and preservation of the marine environment; marine scientific research; and the settlement of disputes. Rights of freedom of navigation and passage through straits and archipelagos which are important to trading nations such as Australia are also recognized in the text. A preparatory commission to prepare for the establishment of the International Seabed Authority and its various organs held its first meeting in Kingston, Jamaica, from 15 March to 12 April 1983.

Antarctica

Australia has had a long association with Antarctica commencing with early expeditions and continuing with an active scientific program. Antarctica's importance to Australia derives from its geographical proximity, the history of Australian involvement there and Australian administration of the Australian Antarctic Territory. Australia maintains three permanent bases in the Territory at Casey, Davis and Mawson (as well as one on Macquarie Island).

As one of the twelve original signatories, Australia attaches particular significance to the 1959 Antarctic Treaty, which serves important Australian scientific, environmental and security interests. Australia hosted the first Antarctic Treaty Consultative Meeting in Canberra in 1961. Such meetings are held about every two years in one of the Consultative Party States, and in 1983 Australia was host to the twelfth meeting. There are now sixteen Antarctic Treaty Consultative Parties.

In 1980, at a conference in Canberra, a Convention for the Conservation of Antarctic Marine Living Resources was concluded. Annual meetings of the Commission and the Scientific Committee established by the Convention have been held in Hobart since 1982. The Commission is the first international organisation to be established in Australia. Australia has also participated in a series of special consultative meetings to negotiate a regime to regulate the exploration and exploitation of Antarctic minerals. Five sessions have been held so far, and further sessions are scheduled in 1985.

Treaties

The texts of bilateral and multilateral treaties to which Australia becomes a party are printed in the Australian Treaty Series when they enter into force. The most recent consolidation of the Australian Treaty List was published as Treaty Series 1979, No. 1. Australia's current position with regard to individual treaties may be ascertained by referring to the 1971 list in conjunction with Cumulative Supplement No. 4 (Treaty Series 1982, No. 10), annual volumes on treaty action in the Treaty Series, and annual volumes on International Treaties and Conventions to which Australia has not yet become a party, in the series 'Select Documents on International Affairs'. These publications are available from Australian Government Publishing Service bookshops in State capital cities.

Cultural relations

The Department of Foreign Affairs administers a program of cultural exchanges with other countries in furtherance of the Government's foreign policy objectives. The program includes exchanges in the performing and visual arts, sport, film and literature as well as academic exchanges. The Department co-operates and consults with appropriate Australian organisations.

Australia has cultural agreements with China, France, Greece, India, Indonesia, Iran, Italy, Japan, Republic of Korea, Malaysia, the Philippines, Romania, Singapore, Thailand, USSR and Yugoslavia.

Australian aid program 1984–85

The Minister for Foreign Affairs, Mr Hayden, established a committee in April 1983, chaired by Sir Gordon Jackson, to undertake a major review of the future form and direction of Australia's aid program. The Committee's report was tabled in Parliament by Mr Hayden in June 1984.

The Jackson report was the first attempt for many years to analyse official development assistance as a whole, to outline aid philosophy, to assess the impact of various forms of aid, to consider its geographic spread and to examine the way in which the delivery of Australian aid should be managed.

The report was tabled as a discussion paper and Mr Hayden indicated that the Government would respond progressively to the recommendations contained in the report.

Australia's development assistance program is directed towards promoting the economic and social advancement of developing countries, particularly in Asia and the Pacific. It aims to meet the expressed needs of these countries and is directed towards key activities in their economics, such as rural development. All of Australia's aid is given on grant terms and significant proportion is untied.

About 80 countries receive assistance, but Australia's efforts are aimed principally at assisting its nearest neighbours—Papua New Guinea (PNG), the South Pacific region and the countries of South East Asia.

In 1984–85, Australia expects to spend about $992 million on official development assistance, an increase of about $60.6 million or 6.5 per cent more than in 1983–84. Of this amount $751 million (76 per cent) will be provided as bilateral aid given directly to the governments of developing countries. The major elements of the bilateral program are budgetary support for PNG, project aid (equipment, goods and expertise), the education of Third World students and trainees, food aid and assistance through non-government organisations.

In addition, $222 million has been allocated to multilateral agencies. Support provided to these bodies has been increased by $19 million over 1983–84.

Papua New Guinea

About 42 per cent of Australia's bilateral aid goes to PNG because of a special relationship with the country based on long historical association.

This year Papua New Guinea will receive $317 million in assistance. The bulk of this amount ($299 million) will be in the form of an untied grant for budgetary support. This amount represents the fourth payment under a five-year aid agreement negotiated between the Australian and Papua New Guinean Governments in September 1980 and amended in 1983. As with the first five-year aid agreement which ended in 1980–81, the purpose of this long-term aid arrangement is to provide PNG with a practicable framework in which to plan its development.

In addition to the budget support grant, Australia meets the cost of termination payments and retirement benefits due to former employees and provides training for Papua New Guineans. This training is incorporated into the PNG-Australia Technical Co-operation Program. This program also includes a jointly funded technical assistance program which provides services and related equipment to increase the technical capacity and capability of Papua New Guinea.

Projects and related programs

Most of Australia's bilateral aid to countries other than PNG is for specific development activities undertaken by the developing countries. These range from large-scale regional development programs to simple facilities in villages. Australia is supporting some 300 projects in over 40 countries. Generally, Australia meets the foreign exchange costs of a project, but it also pays, in an increasing number of cases, some of the local costs associated with projects.

South East Asia receives the bulk of Australia's bilateral project aid. Many of the 91 projects in the region involve infrastructure development work, agricultural improvements through crop and livestock research as well as practical extension work. In recent years Australia has become increasingly involved in large-scale, integrated rural development programs intended to bring about the balanced growth of whole regions, particularly in Indonesia, the Philippines and Thailand.

Expenditure on research projects and other activities under the ASEAN-Australia Economic Co-operation Program will amount to $13 million in 1984-85.

To assist countries of the South Pacific in their development planning the Australian Government has confirmed an indicative planning figure of $300 million for aid in the region for the five-year period 1983/84–1987/88. Most of the expenditure associated with this commitment is in the form of bilateral project aid for Fiji, Tonga, Western Samoa, Solomon Islands, Vanuatu, Kiribati, Tuvalu, Cook Islands and Niue.

A large number or projects is being undertaken. This reflects the small-scale nature of island economies. These projects cover a wide range of activities and include assistance with transport, rural development, water and sewerage schemes, telecommunications and upgrading health facilities. To keep pace with the changing requirements, Australia has adapted the aid program to this region to include funding of the local costs of projects, grants to strengthen development banks and related financial institutions, accountable cash grants for small-scale development projects, development import grants and funds for island equity in joint ventures with Australian partners.

There are several special forms of bilateral aid delivery.

Staffing Assistance Schemes. The need for skilled personnel is a major requirement in most developing countries and Australia seeks to assist in this regard through staffing assistance schemes. Staffing assistance is provided to 13 developing countries and involves supplementing local salaries paid to Australian nationals to fill positions in the public service of the recipient countries. The main regions assisted are the South Pacific, Africa and the Indian Ocean. In 1984–85, $7.7 million have been provided for staffing assistance schemes.

Development Import Grants. These grants are provided to certain low income developing countries in the South Pacific, Africa and South Asia to meet the cost of importing developmental Australian goods and services. In 1984–85, $8.7 million have been allocated.

Development Import Finance Facility (DIFF). This scheme enables recipients of Australian aid to buy needed capital goods and services from Australia on better terms than are available under other forms of concessional finance. The facility combines grant aid funds with loans provided by the Export Finance and Insurance Corporation (EFIC) and thereby enables Australian exporters to offer a financial package comparable with 'mixed credits' offered by other donor Governments. The facility was introduced into the aid program in 1980-81 and was limited to ASEAN countries. It was expanded in 1982 to apply to all Australian aid recipients. Aid funds allocated to the DIFF scheme in 1984–85 are $16 million.

Co-financing Facility. The co-financing facility with the World Bank, which was introduced into the aid program in 1982–83, allows Australia to support major high priority development projects being assisted by the World Bank. Australian involvement in such projects is in the Asia-Pacific region. This new facility, which has attracted considerable interest from the private sector, opens up opportunities for Australian contractors and suppliers of goods and services to participate in large World Bank-funded projects. In consultation with the World Bank, a program has been developed which concentrates on project preparation studies in important sectors of Australia's major aid recipients. This is seen as a valued aid form by these recipients as the provision of Australian technical and professional contributions to the preparation studies help access to Bank finance. In 1984–85 funds for the co-financing facility were $14 million.

Training

Australia's training aid program is designed to help recipient countries develop skilled personnel needed for their economic and social development. In 1984–85, $136.7 million was allocated for educating overseas students.

In 1984–85, for the first time, the costs involved in educating developing country students (both sponsored and private) attending secondary and tertiary institutions in Australia, were drawn together under the aid program. About $102.5 million has been spent to meet the costs involved in educating developing-country students in Australia.

While students and trainees assisted under the aid program come from 70 developing countries, the largest share of training aid goes to developing countries in South East Asia and the South Pacific. This year 3500 students and trainees will have the full cost of their studies and subsistence met by the Australian Government. A further estimated 15 000 students will study in Australia, but are being supported by their own families, home governments or international organisations, while their educational costs will be met in part by the Australian Government.

The development training program provides opportunities to train in Australia either in formal academic courses at tertiary institutions or in specifically designed courses with a practical orientation. Many of the special short courses are run by the International Training Institute in Sydney. Training in institutions in developing countries is also provided under third-country training awards where the training can be related to local conditions.

Training programs for sponsored students are planned in consultation with recipient governments and may consist of a range of training activities related to identified personnel development needs. A particular effort is made to relate courses of study to developmentally important sectors in each recipient country and to tailor courses to specifically identified needs. Increasing use will be made of training awards associated with projects supported by Australian technical assistance. In 1984–85 about $24.6 million were provided to support the bilateral sponsored training program.

In 1984–85 support for the Australian Universities International Development Program (AUIDP) has been increased to $7.2 million, an increase of $1.9 million over expenditure in 1983–84. The main purpose of this program is to help strengthen universities in neighbouring developing countries by assisting university staff improve their capacities in teaching, research and administration. The primary academic emphasis of the program is on agriculture, food production and population studies. The increased support for AUIDP in 1984–85 provides for increased assistance to selected universities in the ASEAN and South Pacific regions.

Food aid and food security

There is an increasing gap between food demand and supply in many developing countries. This has been aggravated by population pressure and the progressive destruction of agricultural land. Australia is responding to this problem in two ways: by addressing the short-term problem of food shortages with food aid; and by helping developing countries supply more of their own food requirements in the long term.

In 1984–85, $112 million has been used to provide food aid.

The Government is committed under the Food Aid Convention (FAC) to provide a minimum of 400,000 tonnes of foodgrain annually. Australia is increasingly drawing on the capacities and skills of the World Food Program (WFP) in distributing and monitoring the food aid program. In 1984–85, 50 per cent of the FAC commitment will be channelled through the WFP. It is expected that this will increase the effectiveness of the program because of the WFP's skill in using food aid in association with projects which develop rural infrastructure and stimulate agricultural production.

Australian bilateral foodgrain is provided to food-deficit countries taking into account such factors as food consumption requirements, GNP per capita, calorie consumption, infant mortality rates and life expectancy levels, international reserves, import capacity, crop outlook and increasingly, emergency needs. With these factors taken into account, Australia has found that an increasing portion of the program is being provided to meet particularly severe food problems facing African countries.

There is a growing emphasis in the program on meeting emergency needs brought about by unfavourable climatic conditions, refugee flows and other factors. In addition to food supplied from the FAC commitment, Australia also meets these emergency needs from a special 50,000 tonne allocation to the International Emergency Food Reserve.

Apart from foodgrain, an allocation of $5.5 million is set aside to provide non-grain foods such as high protein biscuits for use in feeding projects for vulnerable groups and for emergencies. In addition, $1.5 million have been provided in 1984–85 for food security schemes aimed at improving the long-term food security in developing countries. Programs to be supported will include improving food production, storage, marketing and food distribution systems.

A further major initiative in the food security area was the establishment of the Australian Centre for International Agricultural Research (ACIAR). ACIAR was set up in 1982 and in that year the Centre entered into its first contracts with Australian agricultural institutions to undertake research work into agricultural problems facing developing countries. ACIAR operates a trust fund, with the Government agreeing to an initial three-year commitment of $35 million. In 1984–85, $10.5 million was allocated to the Centre, which has now commissioned in excess of 60 collaborative research projects.

Non-Government Organisations (NGOs)

The Australian Government gives financial assistance to a number of Australian Non-Government Organisations (NGOs) for their development assistance activities. Support for these organisations in 1984–85 amounted to approximately $9 million.

The principal avenue of Government/NGO co-operation is a Project Subsidy Scheme under which eligible NGOs are assisted to undertake a variety of small-scale projects at 'grass roots' level in developing countries. In 1984–85 $5.2 million was provided for this purpose.

Some $1.8 million is also provided for schemes utilising the skills of Australian volunteers, including the Australian Executive Service Overseas Program and the Australian Overseas Disaster Response Organisation.

A number of international NGOs has been supported again in 1984–85, such as the International Committee of the Red Cross. In total, support for these activities is currently about $1.6 million.

Multilateral aid

Australia contributes to several international and regional organisations and financial institutions concerned with aid to developing countries. They include the World Bank Group, Asian Development Bank, United Nations Development Program and other UN agencies, International Fund for Agricultural Development, Commonwealth Fund for Technical Co-operation, Economic and Social Commission for Asia and the Pacific, South Pacific Bureau for Economic Co-operation, South Pacific Commission and various international science, technology and research centres.

Support for these bodies provides Australia with an opportunity to participate in major development projects which are beyond the resources of individual donors.

Contributions in 1984–85 to international financial institutions were estimated at $99 million. Included in this amount is $60 million which will be provided to the International Development Association, the soft-lending affiliate of the World Bank, which directs its work towards assisting the poorest countries. Other major contributions in 1984–85 involved expenditure of some $15.5 million to the Asian Development Fund, $11.7 million for the International Bank for Reconstruction and Development and $9.6 million for the Asian Development Bank.

Payments to UN, Commonwealth and regional programs are estimated at $102 million (including $55 million to the WFP). Bodies supported include the UN Development Program, which is the largest UN funding agency for technical assistance and also plays a co-ordinating role within the UN system in the technical co-operation field; UNICEF, which directs its main efforts to furthering the interests of children and young people in developing countries; and the UN Fund for Population Activities, which is directly concerned with assistance related to population problems. The United Nations High Commissioner for Refugees and United Nations Relief and Work Agency work to assist refugees, the former being engaged world-wide and the latter having a specific charter to assist Palestinian refugees. Support is also given to other UN organisations such as the UN Industrial Development Organisation and the UN Environmental Program.

With regard to Commonwealth-related concerns, a $6.1 million contribution to the Commonwealth Fund for Technical Co-operation has been provided in 1984–85 to meet priority technical assistance needs of developing Commonwealth countries. Other Commonwealth programs supported include the Commonwealth Youth Program.

In 1983–84 $6.5 million was provided for the international science, technology and research programs including support of a number of international agricultural research institutions within the Consultative Group on International Agricultural Research.

Refugees and relief

It appears that massive refugee flows have become a long-term part of international affairs. The millions of men, women and children who live as refugees and displaced persons throughout the world are the victims of political tension or instability, social upheaval and related economic hardships and continuing infringements of human rights. The refugee problem is an international question of grave humanitarian and political concern which has become a major foreign policy problem.

Refugee issues will continue to be a significant element in Australian foreign policy considerations and important in Australia's relations with countries affected by refugee movements. Australia is well-known for its long-standing practice of responding with compassion to refugee problems. This is shown both in resettlement and assistance for refugees and through timely and generous contributions to NGOs active in refugee relief.

Since 1978, Australia has provided $161 million in humanitarian assistance to refugees and displaced persons. In 1984–85 about $8.7 million is being made available (in addition to food aid) for emergency relief. Australia is currently the ninth largest contributor to the budget of the United Nations High Commissioner for Refugees.

Consular

The Department of Foreign Affairs is responsible to the Minister for the protection and welfare of Australian citizens and their interests overseas. Consular services to the Australian public are available from Australian diplomatic and consular posts throughout the world.

Australia's consular service continued to operate effectively and to cope with a greater volume of enquiries attributable to a continuing increase in Australian tourism abroad. In 1983-84, Australia's overseas posts dealt with over 100 000 requests for consular assistance, including 193 cases of Australians dying abroad and arrest of 122 persons.

Policy developments during the past year included work on a series of international treaties covering matters such as consular relations, the treatment of dual nationals and the voluntary transfer of prisoners.

However, the past year also marked the continuation of a determined effort by Australia to actively research and develop consular policies which will more clearly reflect Australian values, open government and Australia's commitment to the defence of its citizens' human rights.

The stimulus for this development is a public and political recognition that dynamic change is necessary in the near future if Australia is to keep pace with rising international standards of consular service.

Australian representation overseas

As at 31 August 1984, Australia maintained the following diplomatic and consular representation overseas. (Full details of these missions are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600.)

Embassies

Afghanistan (in Pakistan); Albania (in Yugoslavia); Algeria; Argentina; Austria; Bahrain; Belgium; Bolivia (in Chile); Brazil; Bulgaria (in Yugoslavia); Burma; Chile; China; Colombia (in Venezuela); Comoros (in Mauritius); Costa Rica (in Mexico); Czechoslovakia (in Poland); Denmark; Ecuador (in Venezuela); Egypt; El Salvador (in Mexico); Ethiopia (in Kenya); Finland (in Sweden); France; Gabon (in Nigeria); German Democratic Republic; Germany, Federal Republic of; Greece; Guatemala (in Mexico); Holy See; Honduras (in Mexico); Hungary; Indonesia; Iran; Iraq; Ireland; Israel; Italy; Ivory Coast (in Ghana); Japan; Jordan; Korea, Republic of; Kuwait; Laos; Lebanon; Libya; Luxembourg (in Belgium); Madagascar (in Tanzania); Maldives, Republic of (in Sri Lanka); Mexico; Mongolia (in U.S.S.R.); Morocco (in France); Nepal; Netherlands; Nicaragua (in Mexico); Norway (in Sweden); Oman (in Jeddah); Pakistan; Panama (in Mexico); Paraguay (in Argentina); Peru; Philippines; Poland; Portugal; Qatar (in Saudi Arabia); Romania (in Yugoslavia); Saudi Arabia; Senegal (in Ghana); South Africa; Spain; Sudan (in Egypt); Sweden; Switzerland; Syria; Thailand; Tunisia (in Algeria); Turkey; Union of Soviet Socialist Republics; United States of America; Venezuela; Vietnam, Socialist Republic of; Yugoslavia.

The Australian Embassy, Washington.

Department of Foreign Affairs

High Commissions

Bahamas (in Jamaica); Bangladesh; Barbados (in Jamaica); Botswana (in Zimbabwe); Britain; Canada; Cyprus; Fiji; Ghana; Grenada (in Jamaica); Guyana (in Jamaica); India; Jamaica; Kenya; Kiribati; Lesotho (in South Africa); Malaysia; Malta; Mauritius; Nauru; New Zealand; Nigeria; Papua New Guinea; Seychelles (in Kenya); Singapore; Solomon Islands; Sri Lanka; Swaziland (in South Africia); Tanzania; Tonga; Trinidad and Tobago (in Jamaica); Tuvalu (in Fiji); Uganda (in Kenya); Vanuatu; Western Samoa; Zambia; Zimbabwe.

Commissions

Hong Kong.

Other

Mission to—European Communities (Brussels); United Nations (New York); United Nations (Geneva); United Nations Educational, Scientific and Cultural Organisation (Paris); Organisation for Economic Co-operation and Development (Paris); United Nations Industrial Development Organisation (Vienna); Australian Delegation to Multilateral Trade Negotiations (Geneva).

Consulate-General in—Abu Dhabi; Auckland; Bahrain; Bombay; Chicago; Houston; Honolulu; Los Angeles; Milan; New York; Noumea, Osaka, Rio de Janeiro; San Francisco; Shanghai; Toronto; Vancouver.

Consulate in—Bali; Edinburgh; Geneva; Manchester.

Specialist officers of the Department of Trade and Resources (formerly the Department of Overseas Trade), other Australian Government Departments and the Defence Services stationed abroad are attached to Australian diplomatic or consular missions. Senior attached officers are in some cases accredited to the missions with diplomatic or consular ranks approved by the Minister for Foreign Affairs.

Passports

A total of 546,027 Australian passports were issued in 1983.

A number of key measures to minimise passport fraud were introduced following the announcement of the Government's response to the Report of the Royal Commission of Inquiry into Drug Trafficking. New security features were introduced to passports and changes were made to the categories of people eligible to certify the identity of passport applicants. An agency agreement was signed between Australia Post and the Department of Foreign Affairs, allowing for the lodgement and initial processing of passport applications at official post offices.

Further changes have been introduced in 1984, including the requirement for all passport applicants to personally lodge their applications.

CHAPTER 6

DEMOGRAPHY

The sources of the statistics in this chapter are population censuses, population surveys, State and Territorial registers of births, deaths and marriages, records of courts dealing with divorce, and other administrative records such as passenger cards required from international travellers and records of family allowance transfers.

With the proclamation of the *Constitution Alteration* (*Aboriginals*) *Act* 1967 on 10 August 1967, the provision in Section 127 of the Constitution requiring the exclusion of Aboriginals in reckoning the numbers of the people of the Commonwealth or of a State or other part of the Commonwealth was repealed. Accordingly, population and vital statistics for all dates subsequent to 10 August 1967 no longer exclude full-blood Aboriginals. Also, estimates for periods back to 30 June 1961 have been revised to include Aboriginals.

THE POPULATION

The population census

Basic enumerations of the population have been made since the early days of settlement in Australia. The early enumerations were known as 'musters'. A census conducted in New South Wales in 1828 became the first in a series of regular censuses in that colony. Periodic censuses were taken in the other Australian colonies. The first simultaneous censuses of all the Australian colonies were taken in 1881. The first national census was taken in 1911. It was followed by others in 1921, 1933, 1947, 1954, 1961 and at five yearly intervals thereafter. A special article on early censuses appears in Year Book No. 15 of 1922. A further article outlining the history, purposes, legal basis, organisation and publication of results of population censuses appears in Year Book No. 53 of 1967, pages 164–70, but note that the reference in that Year Book to the exclusion of Aboriginals from the census count has not applied since the repeal of the relevant provision of Section 127 of the Constitution (see above).

Every census from 1881 has inquired into age, sex, marital status, birthplace, nationality or citizenship, and occupation. A wide variety of other topics has been included from time to time.

The most recent census in Australia was conducted on 30 June 1981. Counts of persons and dwellings are available for every collection district and for other larger areas, as well as statistics on characteristics of persons and dwellings as collected in the census. 1981 Census statistics will continue to be released in publications, on microfiche and on magnetic tape until 1985. A list of 1981 Census publications is contained in *Census 81—Data Release Plans* (2142.0) and details of other releases are in *Catalogue of 1981 Census Tables, Edition 2* (2139.0).

The 1981 Census contained fewer questions than the 1976 Census. However, in addition to basic demographic topics mentioned above, questions were asked on such topics as previous residence, birthplace of parents, English language proficiency, Aboriginality, religious affiliation, school attendance, educational qualifications, income, employment, mode of travel to work and certain characteristics of dwellings.

As for previous censuses, foreign diplomatic personnel and their families were out of the scope of the census, as were all persons residing in diplomatic residences on census night.

While every effort is made to minimise undercounting in the census, some inevitably remains for various reasons (e.g. inadvertent omission of very young children, treatment of some dwellings as unoccupied when in fact, they were occupied, and failure to find all dwellings). Refusal by householders to complete the census schedule is not a significant cause of undercounting. Since 1966, sample surveys have been taken soon after each census to discover the approximate extent of underenumeration and the effects on the census results of misstatement or nonreply to specific questions. Underenumeration of the population of Australia at the 1981 Census is estimated to have been 1.9 per cent. Estimated underenumeration of State and Territory populations ranged from 0.8 per cent in Tasmania to 5.0 per cent in the Northern Territory. Underenumeration varies from location to location and for populations of different ages and other characteristics. These and similar problems are common to all population censuses.

Population estimates

Population estimates by sex and State are calculated on a quarterly basis by updating estimates at census dates for subsequent births and deaths and for overseas and interstate migration. Age estimates as at 30 June each year are published by sex for each State and Territory. Small area population estimates down to the local government area level are also made annually.

The method of determining the base population at a census date has changed with the 1981 Census results becoming available. Estimates now reflect the usual residence of the population rather than the actual location in which people were counted at the census. At the Australia level this means that overseas visitors counted in the census are subtracted, the remaining population is adjusted for census underenumeration and an estimate of Australian residents temporarily overseas on census night is added. For the States this process involves an additional step which returns those people not at home on census night to their place of usual residence.

This change-over has enabled population estimates after the 1981 Census date to be compiled wholly according to place of usual residence, since components of population increase were already available on a usual residence basis. Estimated resident populations for the 1971 and 1976 Census dates have also been calculated and intercensal estimates have been revised accordingly.

As a result of the above adjustments, estimated resident populations at census dates differ from actual census counts. The figures for estimated resident populations (with actual location census counts shown in brackets) are: 13,067,300 (12,755,638) in 1971; 14,033,100 (13,548,448) in 1976; and 14,923,300 (14,576,330) in 1981.

Size and growth of Australia's population

When Europeans first settled in Australia, the number of Aboriginals living in the continent is believed to have numbered at least 300,000. The Aboriginal population suffered a drastic decline in numbers over the next 145 years so that by 1933 it is estimated to have totalled about 67,000. In 1981, however, nearly 145,000 Aboriginals were counted in the census.

The population of Australia reached 1 million in 1858, 5 million in 1918, 10 million in 1959 and 15 million towards the end of 1981.

From 1861 natural increase has been the major element in population growth, and immigration the most variable. In the years 1861 to 1890, total growth on average exceeded 3 per cent a year and natural increase 2 per cent. The rate of natural increase declined during the last decade of the nineteenth century and the first decade of the twentieth century, and this, together with a near cessation of immigration during that period, reduced the rate of growth from 3.70 per cent in 1861–70 to 1.63 per cent in 1901–10.

The 1914–18 War was the dominating influence in the decade 1911–1920: during the war and immediate post-war years the birth rate rose and immigration was resumed. In the economic depression of the 1930s, however, natural increase fell to very low levels and immigration ceased; indeed, in some years, overseas departures exceeded arrivals.

With the outbreak of the 1939–45 War, Australia entered a new phase. The immediate effect of the war was to increase the number of marriages and births. The increasing births more than offset the rise in deaths due to war casualties and higher civilian death rates. Migration in these years was negligible.

The period 1947 to 1961 was marked by continued high natural increase and a resumption of immigration, the latter resulting in very high net gains in each of the four years 1949 to 1952.

Between 1961 and 1970, net migration continued at about the same level as in the previous decade, but there were declines in the crude birth rate and the rate of natural increase. The years from 1971 till 1980 were characterised by a reduced rate of natural increase due to a decline in the birth rate. In 1981, however, the crude birth rate rose for the first time since 1971, to 15.8 per 1,000 mean population (15.3 in 1980), and this rate was maintained in 1982 and 1983. Net migration gain, moderate for most of the seventies, increased sharply during 1979, 1980 and 1981, following changes in migration intake targets and Australia's acceptance of a large number of Indo-Chinese refugees as settlers. However, numbers began to decline in 1982, and in 1983 fell back to the level of the seventies.

The rate of population growth in 1981 was 1.63 per cent, the highest since 1971 (2.08 per cent). It has since declined to 1.51 in 1982 and the preliminary growth rate for 1983 is 1.15. The population estimates in the following table relate to the end of December. Estimates for the end of June are given in other tables in this chapter.

POPULATION AND COMPONENTS OF GROWTH

Period	*Population at end of period ('000) (a)*	*Average annual rate of growth (b) (per cent)*		
		Natural increase	*Net migration (c)*	*Total*
1851-1860	1,145.6			
1861-1870	1,647.8	2.47	1.23	3.70
1871-1880	2,231.5	2.07	1.01	3.08
1881-1890	3,151.4	2.05	1.46	3.51
1891-1900	3,765.3	1.73	0.07	1.80
1901-1910	4,425.1	1.53	0.10	1.63
1911-1920	5,411.3	1.60	0.43	2.03
1921-1930	6,500.8	1.32	0.53	1.85
1931-1940	7,077.6	0.79	0.06	0.85
1941-1950	8,307.5	1.14	0.47	1.62
1951-1955	9,311.8	1.38	0.93	2.31
1956-1960	10,391.9	1.40	0.82	2.22
1961-1965	11,505.4	(*e*) 1.27	(*e*) 0.71	(*e*) 1.98
1966-1970	12,663.5	1.11	0.82	1.94
1971-1975	13,968.9	(*d*)1.07	(*d*)0.49	(*d*)1.56
1976-1980	14,807.4	0.81	0.45	1.17
1975	13,968.9	0.90	0.10	0.99
1976	14,110.1	0.82	0.24	1.01
1977	14,281.5	0.83	0.48	1.21
1978	14,430.8	0.81	0.33	1.05
1979	14,602.5	0.81	0.48	1.19
1980	14,807.4	0.80	0.69	1.40
1981	15,049.5	0.86	0.82	1.63
1982	15,276.8	0.83	0.67	1.51
1983*p*	15,451.9	0.86	0.27	1.15

(*a*) Excludes full-blood Aboriginals prior to 1961. Estimated resident populations from 1971 onwards. (*b*) The average annual rates of population growth for periods greater than one year are calculated on the compound interest principle. The rates refer to the population at the beginning of the period. Discrepancies between the sum of the rate of growth due to natural increase and net migration and the rate of total growth are due to intercensal adjustments. (*c*) Prior to 30 June 1971, net migration includes discrepancies disclosed by the various censuses. From 30 June 1971, net migration is defined as the excess of overseas arrivals over overseas departures classified as permanent and long-term. From 30 June 1976, net migration consists of net permanent and long-term movement and an adjustment for category jumping, i.e. the net effect of changes in travel intentions which affect the categorization of movements. (*d*) The estimated resident population at 31 December 1970 used to compute rates of growth for the period 1971-1975 was 12,929,600. (*e*) The estimated population at 31 December 1960 used to compute rates of growth for the period 1961-65 was 10,430,600. This estimate includes Aboriginals.

Projections of the population

Projections of Australia's population have been made by the ABS using the component method in which a base population is brought forward year by year by applying assumptions about future levels of fertility, mortality and the characteristics of overseas migration.

The 1982 projections presented in the following table give a possible 2021 population in the range 22.1 million to 26.0 million.

Assumptions used in 1982 projection series—

Base population: The four series are based on the preliminary estimated resident population of Australia at 30 June 1981.

Series A: *Fertility*—Total fertility rates for Australia are assumed to recover initially to a level of 2,010 births per thousand females by 1984, and then decline to 1,900 in 1987, remaining constant thereafter. This 1987 level is about 10 per cent below replacement level.

Mortality—The 1971–80 average annual rates of decline in the age-specific death rates are assumed to continue until 1986. From 1987 to 2021 the age-specific death rates are projected to converge linearly to 2021 rates obtained by applying 1961–80 rates of decline for the period 1982–2021.

Migration—Net overseas migration to Australia is set at 75,000 persons per year.

Series B: *Fertility*—Total fertility rates for Australia are assumed to recover from 1,936 births per thousand females in 1981 to long-term replacement level of 2,110 by 1987, remaining constant thereafter.
Mortality—as in Series A.
Migration—as in Series A.
Series C: *Fertility*—as in Series A.
Mortality—as in Series A.
Migration—Net overseas migration to Australia is set at 125,000 persons per year.
Series D: *Fertility*—as in Series B.
Mortality—as in Series A.
Migration—as in Series C.

The effect of the alternative fertility assumptions on projected populations can be seen in the table below by comparing Series A with Series B or by comparing Series C with Series D. Similarly comparisons between Series A and Series C or between Series B and Series D will bring out the differences due to the alternative migration assumptions.

POPULATION: ACTUAL AND PROJECTED
('000)

		Projected population				
		1982 Projections				
At 30 June	*Actual population(a)*	*At 30 June*	*Series A*	*Series B*	*Series C*	*Series D*
1947	7,579.4	(*b*)1981	14,926.8	14,926.8	14,926.8	14,926.8
1954	8,986.5	1982	15,129.0	15,129.0	15,179.5	15,179.6
1961	10,548.3	1983	15,335.9	15,336.6	15,438.0	15,438.7
1966	11,599.5	1984	15,550.0	15,552.5	15,704.6	15,707.1
1971	13,067.3	1985	15,766.7	15,776.5	15,974.9	15,984.8
1976	14,033.1	1986	15,981.1	16,006.9	16,243.8	16,270.1
1977	14,192.2	1991	17,008.6	17,169.0	17,555.8	17,721.3
1978	14,359.3	1996	17,994.2	18,297.8	18,843.9	19,160.0
1979	14,515.7	2001	18,916.7	19,365.4	20,084.1	20,555.1
1980	14,695.4	2006	19,760.2	20,359.6	21,261.4	21,895.5
1981	14,923.3	2011	20,557.1	21,332.9	22,408.5	23,235.0
1982	15,178.4	2016	21,328.7	22,331.9	23,544.7	24,619.5
1983	15,378.6	2021	22,062.1	23,337.1	24,653.4	26,026.1

(*a*) Prior to 1971 population figures are census counts. For 1971 and subsequent years figures shown are estimated resident populations. Figures prior to 1961 exclude full-blood Aboriginals. (*b*) Base population; preliminary estimated resident population.

Without further immigration, Series A (and C) projections yield a population of 17.2 million by the year 2001 and of 18.1 million by the year 2021; Series B (and D) projections, without immigration, give populations of 17.6 million for 2001 and 19.3 million for 2021.

For all four series, the annual rate of growth would eventually decrease as a consequence of the increasing crude death rate, the falling crude birth rate and the decreasing rate of net migration gain. The median age would continuously increase as a result of the population becoming older. This ageing of the population is also reflected in an increase in the crude death rate whilst age-specific mortality rates are projected to decrease.

PROJECTED ANNUAL RATES OF GROWTH AND MEDIAN AGES (*a*) AUSTRALIA 1981 TO 2021

	Year ending 30 June	*Series A*	*Series B*	*Series C*	*Series D*
Birth rate (per cent)	1981p	1.57	1.57	1.57	1.57
	1986	1.60	1.70	1.60	1.70
	1991	1.52	1.67	1.53	1.69
	1996	1.46	1.59	1.47	1.61
	2001	1.38	1.50	1.39	1.52
	2006	1.31	1.43	1.33	1.45
	2011	1.29	1.43	1.31	1.45
	2016	1.27	1.44	1.30	1.47
	2021	1.25	1.43	1.28	1.45
Death rate (per cent)	1981p	0.74	0.74	0.74	0.74
	1986	0.72	0.72	0.71	0.71
	1991	0.76	0.76	0.75	0.74
	1996	0.80	0.79	0.78	0.77
	2001	0.83	0.81	0.80	0.79
	2006	0.86	0.83	0.82	0.80
	2011	0.83	0.85	0.85	0.82
	2016	0.91	0.87	0.87	0.83
	2021	0.94	0.90	0.90	0.85
Rate of net migration gain (per cent)	1981p	0.87	0.87	0.87	0.87
	1986	0.47	0.47	0.78	0.77
	1991	0.44	0.44	0.72	0.71
	1996	0.42	0.41	0.67	0.66
	2001	0.40	0.39	0.63	0.61
	2006	0.38	0.37	0.59	0.57
	2011	0.37	0.35	0.56	0.54
	2016	0.35	0.34	0.53	0.51
	2021	0.34	0.32	0.51	0.48
Total rate of growth (per cent)	1981p	1.60	1.60	1.60	1.60
	1986	1.36	1.45	1.67	1.77
	1991	1.20	1.35	1.50	1.65
	1996	1.08	1.22	1.36	1.50
	2001	0.95	1.08	1.22	1.34
	2006	0.83	0.96	1.10	1.22
	2011	0.77	0.92	1.03	1.17
	2016	0.72	0.91	0.96	1.14
	2021	0.65	0.86	0.89	1.08
Median age (years)	1981p	29.61	29.61	29.61	29.61
	1986	30.86	30.81	30.71	30.66
	1991	32.18	31.88	31.91	31.63
	1996	32.59	32.99	33.15	32.64
	2001	33.61	33.88	34.20	33.44
	2006	35.84	34.89	35.30	34.35
	2011	37.01	35.67	36.31	34.99
	2016	37.68	35.87	36.87	35.18
	2021	38.24	36.17	37.44	35.52

(*a*) The median age indicates the age at which one half of the population is younger and the other half older.

Location of the population

For historical, climatic and economic reasons the population of Australia is concentrated in capital cities and other major cities, mainly on the south and east coasts of the continent. In June 1983, 69.9 per cent of the population lived in the national capital, the six State capital cities and Darwin, and four other major cities of 100,000 or more persons (capital city statistical divisions and statistical districts). Of these, only Canberra is located inland. The percentage of the population living in rural areas declined over the years as the major cities and towns attracted most of the population growth; there were periods when the rural population actually declined in numbers. This trend, however, slowed considerably after 1971 and between 1976 and 1981 it actually reversed, so that a higher percentage of the population was counted in rural areas at the 1981 Census (14.2 per cent) than at the 1976 Census (13.9 per cent). In 1983, New South Wales was the State with the highest per cent of the estimated resident population living in the capital city or towns of over 100,000 (74.7 per cent), followed by Victoria (74.4 per cent), South Australia (72.2 per cent), Western Australia (71.0 per cent), Queensland (52.9 per cent) and Tasmania (40.2 per cent). In the Northern Territory, 47.3 per cent of the estimated resident population lived in the capital city.

ESTIMATED RESIDENT POPULATION IN CAPITAL CITIES AND OTHER MAJOR CITIES(a)

('000)

	30 June 1976	*30 June 1981*	*30 June 1983*
Sydney	3,143.8	3,279.5	3,335.0
Melbourne	2,723.7	2,806.3	2,864.6
Brisbane	1,000.9	1,096.2	1,138.4
Adelaide	924.1	952.7	969.2
Perth	832.8	922.0	969.1
Hobart	164.4	171.1	173.7
Darwin	44.2	56.5	63.3
Canberra (*b*)	226.5	246.5	255.9
Newcastle	380.0	402.7	414.7
Wollongong	222.3	231.4	235.0
Gold Coast (*c*)	110.9	162.7	189.1
Geelong	138.3	142.0	(*d*)142.9
Total	**9,911.9**	**10,469.6**	**10,750.7**
Percentage of total population	**70.63**	**70.16**	**69.91**

(*a*) Capital city statistical divisions and statistical districts of 100,000 persons or more. (*b*) Includes Queanbeyan. (*c*) Includes Tweed Heads. (*d*) Estimated resident population at 30 June 1982.

While there has been population growth in all States during this time, there has, between 30 June 1971 and 30 June 1983, been substantially higher than average growth in the States of Queensland (33.5 per cent), Western Australia (29.5 per cent), and the two Territories—the Northern Territory (56.2 per cent) and the Australian Capital Territory (56.5 per cent). During this time the total Australian population increased by 17.7 per cent.

POPULATION OF STATES AND TERRITORIES(*a*)

('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(b)*	*Aust.*
5 April 1891	1,127.1	1,140.1	393.7	315.5	49.8	146.7	4.9	..	3,177.8
31 March 1901	1,354.8	1,201.1	498.1	358.3	184.1	172.5	4.8	..	3,773.8
3 April 1911	1,646.7	1,315.6	605.8	408.6	282.1	191.2	3.3	1.7	4,455.0
4 April 1921	2,100.4	1,531.3	756.0	495.2	332.7	213.8	3.9	2.6	5,435.7
30 June 1933	2,600.8	1,820.3	947.5	580.9	438.9	227.6	4.9	8.9	6,629.8
30 June 1947	2,984.8	2,054.7	1,106.4	646.1	502.5	257.1	10.9	16.9	7,579.4
30 June 1954	3,423.5	2,452.3	1,318.3	797.1	639.8	308.8	16.5	30.3	8,986.5
30 June 1961	3,918.5	2,930.4	1,527.5	971.5	746.8	350.3	44.5	58.8	10,548.3
30 June 1966	4,237.9	3,220.2	1,674.3	1,095.0	848.1	371.4	56.5	96.0	11,599.5
30 June 1971	4,725.5	3,601.4	1,851.5	1,200.1	1,053.8	398.1	85.7	151.2	13,067.3
30 June—									
1974	4,894.1	3,755.7	2,008.3	1,241.5	1,127.6	406.2	102.9	186.2	13,722.6
1975	4,932.0	3,787.4	2,051.4	1,265.3	1,154.9	410.1	(*c*)92.9	199.0	13,893.0
1976	4,959.6	3,810.4	2,092.4	1,274.1	1,178.3	412.3	98.2	207.7	14,033.1
1977	5,001.9	3,837.4	2,129.8	1,286.1	1,204.4	415.0	103.9	213.7	14,192.2
1978	5,053.8	3,863.8	2,172.0	1,296.2	1,227.9	417.6	110.0	218.0	14,359.3
1979	5,111.1	3,886.4	2,214.8	1,301.1	1,246.6	420.8	114.1	220.8	14,515.7
1980	5,171.5	3,914.3	2,265.9	1,308.4	1,269.1	423.6	118.2	224.3	14,695.4
1981	5,234.9	3,946.9	2,345.2	1,318.8	1,300.1	427.2	122.6	227.6	14,923.3
1982	5,307.9	3,994.1	2,419.6	1,328.7	1,336.9	429.8	129.4	231.9	15,178.4
1983	5,360.4	4,037.6	2,471.6	1,341.5	1,364.5	432.6	133.9	236.6	15,378.6
Percentage of total population in 1983	**34.86**	**26.25**	**16.07**	**8.72**	**8.87**	**2.81**	**0.87**	**1.54**	**100.00**

(*a*) Figures prior to 1961 exclude full-blood Aboriginals. The estimates from June 1971 for each State and Territory are estimated resident populations. Intercensal estimates incorporate adjustments to make each intercensal total increase agree with the difference between the estimated resident populations at two consecutive census points. (*b*) Part of New South Wales before 1911. (*c*) Decrease due to the effect of cyclone 'Tracy' on the Darwin population.

Age distribution of the population

The age distribution of the population is shown in Plate 14, page 79, in the form of an age-sex pyramid. The low birth rates of the depression years of the 1930s, the prolonged "baby boom" from the end of World War II to the early 1960s, the declining birth rate of the 1970s and the very recent recovery in the birth rate are reflected in the profile.

ESTIMATED RESIDENT POPULATION BY AGE: 30 JUNE 1983
('000)

Age group (years)	*Males*	*Females*	*Persons*
0–4	599.2	569.8	1,169.0
5–9	619.8	589.9	1,209.6
10–14	699.3	670.8	1,370.1
15–19	656.8	627.9	1,284.7
20–24	681.5	664.0	1,345.5
25–29	642.2	627.9	1,270.2
30–34	628.0	614.0	1,242.1
35–39	579.7	558.9	1,138.5
40–44	456.9	434.7	891.6
45–49	390.3	372.1	762.4
50–54	384.5	368.5	753.0
55–59	377.6	372.7	750.3
60–64	317.2	343.4	660.6
65–69	251.3	291.2	542.5
70+	390.9	597.5	988.5
All ages	**7,675.3**	**7,703.3**	**15,378.6**

The median age of the population has been increasing since the early 1970s. It stood at 30.2 years on 30 June 1983.

MEDIAN AGE OF THE POPULATION *(a)*, SELECTED YEARS 1901-83

	1901	*1921*	*1933*	*1947*	*1961*	*1971*	*1981*	*1983*
Median age (years)	22.5	25.8	27.7	30.7	29.4	27.5	29.6	30.2

(*a*) The median age indicates the age at which one half of the population is younger and the other half older. Based on estimated resident populations from 1971 onwards, prior to 1971 on census counts.

The age distribution of the population has changed gradually in the past decade or so. The proportion of the population aged 65 years and over has increased, due in part to a declining number of births, but also to improvements in life expectancy resulting from a falling death rate.

Substantial levels of immigration have had the effect of reducing the proportion of the population in elderly groups to levels below what it would otherwise have been.

Australia's age profile, with a median age of approximately 30 years, is comparatively younger than that of much of Europe, the original source of most of Australia's population. This is because of a higher rate of natural increase and the effect of immigration to Australia.

The labour force age group

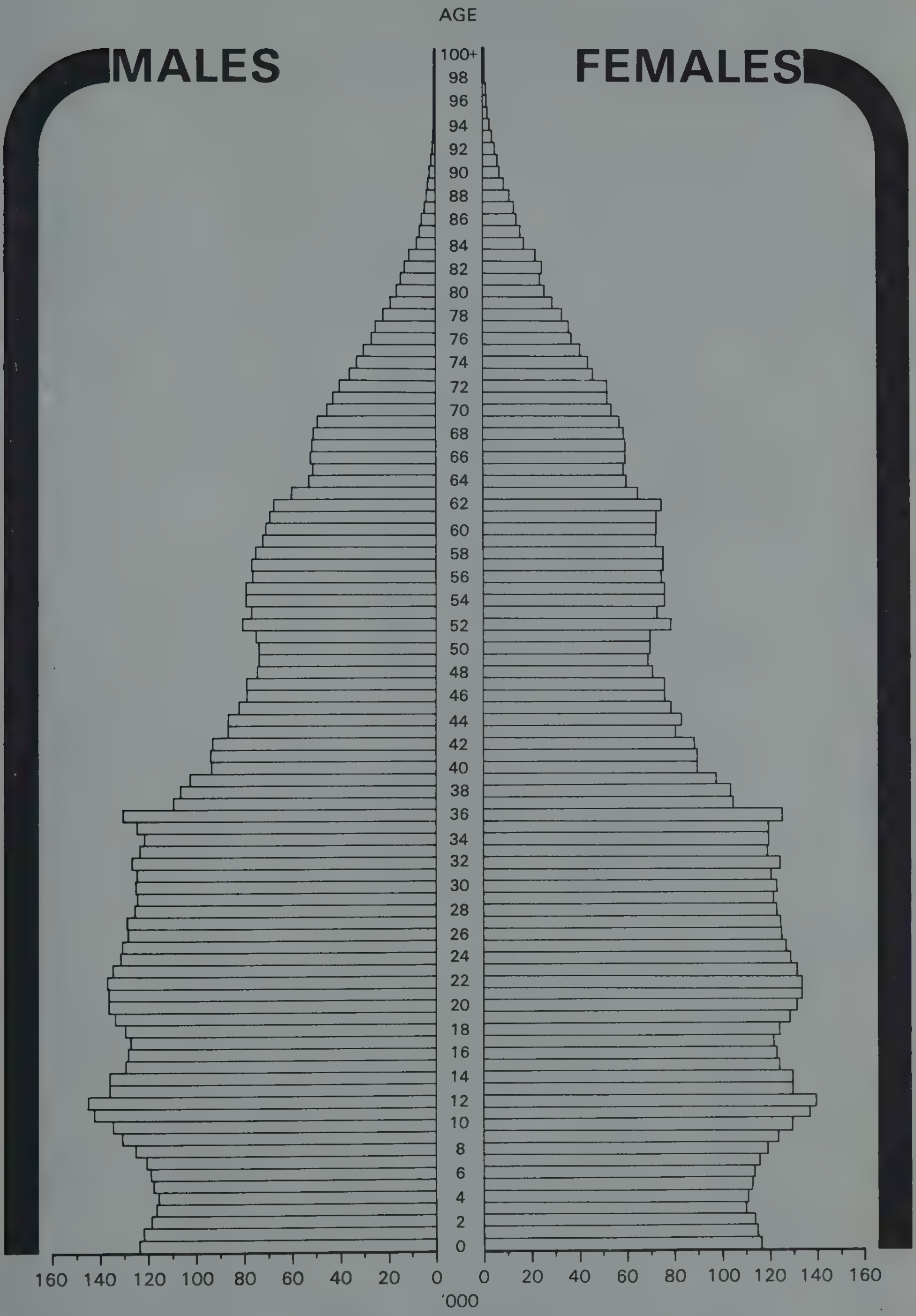
The proportion of the population in the labour force age group (usually defined as the population aged 15-64) increased between 1971 and 1983 from 63.0 to 65.6 per cent of the population. The increase was particularly large in the 15-44 age group.

PERCENTAGE DISTRIBUTION OF THE POPULATION(*a*) BY AGE GROUP: SELECTED YEARS 1947–83

	30 June							
Age group	*1947*	*1954*	*1961*	*1966*	*1971*	*1976*	*1981*	*1983*
				(*per cent*)				
0–14 years	25.1	28.5	30.2	29.4	28.7	27.0	25.0	24.4
15–44 years	45.6	43.1	41.4	42.2	43.0	44.1	46.1	46.6
45–64 years	21.3	20.0	19.9	19.9	20.0	20.0	19.2	19.0
Total 15–64 years	*66.9*	*63.2*	*61.3*	*62.1*	*63.0*	*64.1*	*65.3*	*65.6*
65 years and over	8.0	8.3	8.5	8.5	8.3	8.9	9.7	10.0

(*a*) Prior to 1971, percentages shown are based on census counts; from 1971 they are based on estimated resident populations. Figures prior to 1961 exclude Aboriginals.

AGE PYRAMID OF THE ESTIMATED RESIDENT POPULATION, 1983



POPULATION OF AUSTRALIA : AGE LAST BIRTHDAY, BY SEX, 30 JUNE 1983

PLATE 14

The aged population

The proportion of total population aged 65 years and above was 10.0 per cent in 1983, an increase from 8.3 per cent in 1971 and 8.9 per cent in 1976.

The proportion of females in this group is high; 58.1 per cent of the total in 1983. The female proportion increases with age due to higher male mortality at every age.

ESTIMATED RESIDENT POPULATION BY AGE GROUP: 1971 TO 1983

	Number ('000)				*Per cent*			
30 June	*Under 15*	*15–44*	*45–64*	*65 and over*	*Under 15*	*15–44*	*45–64*	*65 and over*
				MALES				
1971	1,918.6	2,887.4	1,302.6	459.4	29.2	44.0	19.8	7.0
1976	1,940.6	3,158.2	1,407.8	525.5	27.6	44.9	20.0	7.5
1979	1,901.4	3,355.3	1,421.3	575.8	26.2	46.3	19.6	7.9
1980	1,897.6	3,420.9	1,424.8	594.8	25.9	46.6	19.4	8.1
1981	1,904.6	3,496.6	1,434.9	612.2	25.6	46.9	19.3	8.2
1982	1,914.9	3,581.6	1,450.6	629.2	25.3	47.3	19.1	8.3
1983	1,918.3	3,645.1	1,469.7	642.2	25.0	47.5	19.1	8.4
				FEMALES				
1971	1,828.7	2,734.2	1,305.5	631.0	28.1	42.1	20.1	9.7
1976	1,846.5	3,027.2	1,400.0	727.4	26.4	43.2	20.0	10.4
1979	1,817.0	3,237.1	1,413.9	794.0	25.0	44.6	19.5	10.9
1980	1,813.4	3,306.5	1,418.9	818.5	24.6	44.9	19.3	11.1
1981	1,821.0	3,382.1	1,429.1	842.8	24.4	45.2	19.1	11.3
1982	1,829.4	3,463.9	1,441.5	867.3	24.1	45.6	19.0	11.4
1983	1,830.5	3,527.5	1,456.6	888.7	23.8	45.8	18.9	11.5
				PERSONS				
1971	3,747.3	5,621.6	2,608.1	1,090.4	28.7	43.0	20.0	8.3
1976	3,787.1	6,185.4	2,807.8	1,252.8	27.0	44.1	20.0	8.9
1979	3,718.4	6,592.4	2,835.1	1,369.7	25.6	45.4	19.5	9.4
1980	3,711.0	6,727.5	2,843.6	1,413.3	25.3	45.8	19.4	9.6
1981	3,725.5	6,878.7	2,864.0	1,455.0	25.0	46.1	19.2	9.7
1982	3,744.3	7,045.5	2,892.1	1,496.5	24.7	46.4	19.1	9.9
1983	3,748.7	7,172.6	2,926.3	1,531.0	24.4	46.6	19.0	10.0

Marital status

MARITAL STATUS OF THE POPULATION(*a*) 1971 TO 1981

(Per cent distribution)

	Never married					
Census	*Under 15*	*15 and over*	*Married (incl. permanently separated)*	*Widowed*	*Divorced*	*Total*
			MALES			
1971	29.2	21.0	46.7	2.0	1.0	100.0
1976	27.6	21.5	47.5	1.9	1.5	100.0
1981	25.6	23.4	46.7	1.9	2.5	100.0
			FEMALES			
1971	28.1	15.0	47.5	8.2	1.1	100.0
1976	26.4	15.6	47.9	8.2	1.8	100.0
1981	24.4	17.5	46.7	8.3	3.1	100.0

(*a*) Census count, not adjusted for underenumeration.

At the 1981 Census the numbers of men and women aged 15 and over were nearly equal, but there were more single men than single women and there were more widows than widowers. The first phenomenon is attributable to women generally marrying about 2 years younger than men, and the second to their greater longevity. In 1981, 31.4 per cent of the male population aged 15 and over was single, 62.7 per cent married (including those who were married but recorded as permanently separated), 2.5 per cent widowed and 3.4 per cent divorced. For females the figures were 23.2 per cent single, 61.7 per cent married (including married but permanently separated), 11.0 per cent widowed and 4.1 per cent divorced.

Masculinity ratios

The masculinity ratio of the population is expressed as the number of males per 100 females. This ratio varies by age: it is about 105.5 at birth, but higher male mortality gradually erodes the difference so that the numbers of males and females would tend to be about the same soon after age 50 in the absence of migration, and the masculinity ratio progressively declines thereafter. The overall masculinity ratio of the population has been declining to such an extent that it fell below 100 in 1979, the first time since World War I. In 1983 it was 99.6.

MASCULINITY RATIOS IN EACH AGE GROUP(*a*)
(MALES PER HUNDRED FEMALES)

	Age in years				
30 June	*0–14*	*15–44*	*45–64*	*65 and over*	*Total*
1971	104.9	105.6	99.8	72.8	101.1
1976	105.1	104.3	100.6	72.2	100.4
1979	104.7	103.7	100.5	72.5	99.9
1980	104.6	103.5	100.4	72.7	99.7
1981	104.6	103.4	100.4	72.6	99.6
1982	104.7	103.4	100.6	72.6	99.7
1983	104.8	103.3	100.9	72.3	99.6

(*a*) Estimated resident populations.

Ethnic composition

The composition of the population has been changing gradually in post-war decades due to changes in both the numbers and the origins of immigrant flows.

At 30 June 1981, persons born outside Australia made up 21 per cent of the population, a slight increase on earlier censuses. This represents a substantially higher proportion than that recorded at the 1947 Census (following the end of World War II) when the proportion was 10 per cent.

PERSONS BY BIRTHPLACE 30 JUNE 1981(*a*)

	Males	*Females*	*Persons*
Australia	5,615,436	5,778,425	11,393,861
UK and Eire	575,375	557,226	1,132,601
New Zealand	89,782	86,931	176,713
Germany (b)	55,126	55,632	110,758
Greece	75,215	71,410	146,625
Italy	149,684	126,199	275,883
Lebanon	26,622	23,001	49,623
Malta	30,628	26,373	57,001
Netherlands	51,863	44,181	96,044
Poland	33,031	26,410	59,441
Yugoslavia	81,527	67,808	149,335
Other Europe	111,208	93,822	205,030
Other Asia	162,146	159,819	321,965
America	48,974	47,273	96,247
Africa	45,609	44,628	90,237
Other Oceania	17,621	18,511	36,132
At sea and not stated	97,229	81,605	178,834
Total	**7,267,076**	**7,309,254**	**14,576,330**

(*a*) Census counts, not adjusted for underenumeration. (*b*) Includes German Federal Republic and German Democratic Republic.

AUSTRALIAN AND OVERSEAS BORN PERSONS(*a*)
(Per cent)

30 June	*Australian born*	*Overseas born*		*Total*
		U.K. and Eire	*Other*	
1954	85.7	7.4	6.9	**100.0**
1961	83.1	7.2	9.7	**100.0**
1966	81.6	7.8	10.5	**100.0**
1971	79.8	8.5	11.7	**100.0**
1976	79.9	8.2	11.8	**100.0**
1981	78.2	7.8	(*b*)14.1	**100.0**

(*a*) Census counts, not adjusted for underenumeration. (*b*) Includes 'not stated' which was imputed for censuses prior to the 1981 Census.

The Aboriginal population

A brief account was given of the Australian Aboriginal population, its origin and its numbers as estimated from time to time in Year Book No. 17, pages 951–61. A special article by A. R. Radcliffe Brown dealing with the estimated number and distribution of the Aboriginal population at the date of the first settlement of European people on the continent appeared in Year Book No. 23, pages 687–96. For a more recent comprehensive analysis, see "The Aboriginal Population of Australia" by L. R. Smith, ANU Press, Canberra 1980.

The task of collecting data on the Aboriginal population is difficult, raising problems of coverage, definition and reporting. For this reason, statistics, even of the total Aboriginal population, should be treated with caution. This applies particularly to comparison of the changes in numbers from one census to another which can be affected by social attitudes and by changes made in the nature of the question in an attempt to improve coverage and reporting. Analysis of 1976 Census results indicated that some overstatement of the number of Aboriginals and Torres Strait Islanders occurred in the 1976 Census. These issues are discussed in more detail in *Census 81—Aboriginals and Torres Strait Islanders* (2153.0)

COUNTS OF ABORIGINALS AND TORRES STRAIT ISLANDERS (TSI) 30 JUNE 1971, 1976, 1981

	1971(a) number			*1976(b) number*			*1981(c) number*		
State	*Aboriginal*	*TSI*	*Total*	*Aboriginal*	*TSI*	*Total*	*Aboriginal*	*TSI*	*Total*
New South Wales	23,101	772	23,873	37,688	2,763	40,451	33,414	1,953	35,367
Victoria	5,656	715	6,371	12,415	2,345	14,760	5,283	774	6,057
Queensland	24,414	7,508	31,922	31,948	9,396	41,344	33,966	10,732	44,698
South Australia	7,140	159	7,299	9,940	774	10,714	9,476	349	9,825
Western Australia	21,903	278	22,181	25,565	560	26,125	30,749	602	31,351
Tasmania	575	96	671	2,522	421	2,943	2,334	354	2,688
Northern Territory	23,253	128	23,381	23,535	215	23,750	28,680	408	29,088
Australian Capital Territory	248	7	255	769	59	828	763	60	823
Australia	**106,290**	**9,663**	**115,953**	**144,382**	**16,533**	**160,915**	**144,665**	**15,232**	**159,897**

(*a*) 1971 figures include a pro-rating of non-response. (*b*) Any discrepancies between totals and sums of components are due to sampling error. (*c*) Changed editing procedures adopted for 1981 Census results; *see* (2153.0) for details.

Internal migration

The five-yearly censuses and annual internal migration surveys (conducted in conjunction with the labour-force survey) are the principal sources of internal migration data. Estimates of interstate migration are also made from address changes notified to the Department of Social Security. For reasons of timing, methodology, coverage (the surveys for example exclude children under 15) and other constraints, these three data series are not comparable.

Internal migration surveys

Internal migration surveys have been conducted at approximately annual intervals since 1970. The most recent was for the twelve months ended 30 June 1983. In these surveys, the place of usual residence of respondents is compared with that twelve months ago. If they differ, the respondent is classified as a mover. Estimates are made of the numbers and characteristics of movers and non-movers. Movers are further classified by place of origin and place of destination. (Because the estimates are based on information from occupants of a small sample of dwellings, the imprecision due to sampling variability should be kept in mind. Standard errors of estimates are published in the detailed bulletins providing the survey results).

Recent internal migration surveys show that about 16 per cent of all persons aged 15 and over change their residence within a twelve-month period. Of those who change their residence, about 53 per cent remain within the same capital city and together with another 37 per cent, within the same State or Territory; slightly over 10 per cent are interstate movements.

While the pattern of migration has varied over the years, the age and sex composition of those who changed residence has been rather consistent: the masculinity ratio remains around 50 to 51 per cent and movers show a concentration in the ages 20 to 34 (59 per cent of all movers in the twelve-month period ended 30 June 1983).

INTERNAL MIGRATION(*a*)

(Persons aged 15 years and over)

	Year ended— *30 June 1980*	*31 May 1981*	*30 June 1982 (b)*	*30 June 1983 (b)*
	('000)			
Changed usual residence—				
Intrastate—				
Within State capital cities (*c*)	885.4	924.6	857.2	929.1
To and from State capital cities (*c*)	177.7	170.0	173.9	155.5
Within Territories and rest of States	508.4	520.0	512.1	484.3
Total, intrastate	1,571.5	1,614.6	1,543.2	1,568.9
Interstate	185.6	193.8	208.3	172.5
Total	1,757.0	1,808.5	1,751.5	1,741.5
Did not change usual residence	8,783.6	8,931.0	9,188.7	9,441.7
Total	10,540.6	10,739.5	10,940.2	11,183.2
	Movers per thousand of population			
Mobility rate	*167*	*168*	*160*	*156*

(*a*) Non-institutionalised civilians aged 15 years and over at the time of the survey who were resident in Australia at the beginning and end of the survey year. (*b*) Excludes persons resident in Australia but with no usual residence at the beginning and/or end of the survey year. (*c*) State capital cities exclude Canberra and Darwin prior to 1983.

As well as enumerating persons who changed usual residence the 1983 internal migration survey collected data on the reasons for moving and other aspects of population mobility.

Reasons for moving. The predominant reason for moving, particularly for intrastate movers, was housing. Of all intrastate movers 56 per cent gave housing as the main reason. The next most quoted reason—employment—accounted for only 15 per cent of intrastate moves. On the other hand employment emerged as the main reason for interstate moves. It accounted for 58 per cent of interstate moves, whilst housing only accounted for 6 per cent.

Persons away from their usual residence

Approximately 4.2 per cent of the population were away from their place of usual residence on 30 June 1983—2.7 per cent were elsewhere within the same State, and 1.5 per cent in another State or overseas. The reasons given for stays within the same State were equally divided between 'work', 'visiting relatives or friends', 'holiday' or 'other reasons'. The reasons for out-of-State stays were predominantly 'holiday', which accounted for 45 per cent of stays; this was followed by 'visiting relatives or friends' (31 per cent) and 'work' (16 per cent).

Not including absences from usual residence on 30 June 1983, 521,600 persons reported at least one stay of 6 weeks or more away from their usual residence during the year ended 30 June 1983. Reasons given were fairly evenly divided between 'visiting relatives or friends', 'work', 'holiday' and 'other reasons'. 'Work'-related stays tended to be of longer duration (approximately 13 weeks on average). 56 per cent of stays were within the State of usual residence, 18 per cent were in another State and 26 per cent were overseas. Of those in the same State the main reason given was 'work' whilst those out of State were usually 'visits to relatives or friends' or 'holidays'.

PERSONS AWAY FROM USUAL RESIDENCE AT 30 JUNE 1983 (*a*)
(Persons aged 15 years and over)

Reason for absence	Persons ('000)		Average duration of stay (weeks)	
	Staying intra-State	*Staying inter-State*	*Staying intra-State*	*Staying inter-State*
Work	78.9	20.5	3.3	3.1
Visiting relatives or friends	97.1	40.3	1.6	3.3
Holiday	61.7	58.5	1.7	3.2
Other	69.0	10.2	3.9	7.2
Total	306.8	129.5	2.5	3.5

(*a*) Non-institutionalised civilians with usual residence in Australia at 30 June 1982 and 30 June 1983 who were staying away from usual residence at 30 June 1983. Excludes 40,800 persons staying overseas and persons whose duration of stay away from usual residence was not known.

Duration at current usual residence. People in Queensland, Western Australia, the Northern Territory and the Australian Capital Territory, reported the shortest average duration at usual residence of 30 June 1983. Those who had lived at their place of usual residence for less than 1 year numbered 19 per cent of the population in Queensland, 19 per cent in Western Australia, 26 per cent in the Northern Territory and 20 per cent in the Australian Capital Territory. This reflects the higher than average population growth rates of these States and Territories due to gains from interstate migration. The other States all fell within the range 13-15 per cent.

DURATION OF STAY AT USUAL RESIDENCE OF 30 JUNE 1983
(Persons aged 15 years and over) (*a*)
('000)

Duration of stay at usual residence of 30 June 1983	*State of usual residence at 30 June 1983—*								
	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1-12 weeks (*b*)	160.3	103.9	93.0	36.8	48.4	13.7	6.9	10.8	473.9
13-25 weeks (*b*)	135.3	101.8	85.7	32.0	49.3	11.5	5.8	10.3	431.7
26-38 weeks (*b*)	176.4	126.6	103.1	35.3	49.8	11.4	5.4	6.7	514.7
39-51 weeks (*b*)	108.2	80.1	54.2	26.6	34.6	8.7	4.1	4.9	321.4
Total less than 1 year (*b*)	580.3	412.4	336.1	130.7	182.1	45.3	22.1	32.7	1,741.7
1-4 years	1,121.2	776.6	562.5	255.5	288.8	80.4	38.2	42.1	3,165.1
5-9 years	667.9	580.9	269.5	186.4	189.2	59.6	15.1	34.3	2,002.8
10-14 years	505.1	380.4	190.0	132.0	111.2	39.9	7.0	25.3	1,390.9
15-19 years	400.4	309.2	132.9	109.4	75.8	33.8	1.7	13.9	1,077.2
20-24 years	246.6	192.2	87.4	68.3	45.6	23.5	*	6.7	670.9
25 years or more	424.7	312.7	167.5	119.5	68.3	35.8	1.1	5.3	1,134.9
Total (b)	**3,946.1**	**2,964.4**	**1,745.9**	**1,001.7**	**960.9**	**318.2**	**85.7**	**160.4**	**11,183.4**

(*a*) Non-institutionalised civilians with usual residence in Australia at 30 June 1982 and 30 June 1983. (*b*) Excludes 135,500 persons with a usual residence at 30 June 1983 but with no usual residence in Australia at 30 June 1982.
Asterisk (*) denotes figure subject to sampling variability too high for most practical uses.

Interstate migration

The most reliable data on internal and interstate migration are provided by the five-yearly censuses. The 1971 Census was the first census which set out to measure internal migration by asking respondents where they usually lived and where they had lived five years before. An analysis of the data is given in the Census Monograph *Internal Migration in Australia.* In the 1976 and 1981 Censuses, respondents were asked where they had lived one year, as well as five years, before. A summary of the 1976 results is given in Year Book No. 65 and the 1981 results in Year Book No. 67. A comparison of data from the 1971, 1976 and 1981 Censuses is presented in *Interstate Migration, Australia, Census of Population and Housing, 30 June 1981* (3411.0).

VITAL STATISTICS

Registration of vital events, i.e. births, deaths and marriages, has been compulsory throughout Australia since 1856. The total number of these occurrences is available for each year since the 1860s and more detailed information since the 1910s. The number of divorces has been published since 1891, but other details have been published on a consistent basis only since the 1950s.

Crude rates are the number of vital events per thousand of the mean population of a particular year. *Natural increase* is the excess of births over deaths. In 1983, births numbered 242,570, deaths 110,084 and the natural increase was 132,486. The rate of natural increase for 1983 was 8.6 per thousand of the mean resident population made up of crude birth rate 15.8 and crude death rate 7.2. The 1983 figures for deaths and natural increase are preliminary.

BIRTHS, DEATHS AND NATURAL INCREASE

Period	*Number*			*Crude rates per 1,000 of mean population*		
	Births	*Deaths*	*Natural increase*	*Births*	*Deaths*	*Natural increase*
Annual averages—						
1961–65	232,952	95,465	137,487	21.3	8.7	12.6
1966–70	240,325	107,263	133,062	20.0	8.9	11.1
1971–75	253,438	111,217	142,221	18.8	8.3	10.6
1976–80	225,388	109,028	116,360	15.7	7.6	8.1
Annual totals—						
1978	224,181	108,425	115,756	15.6	7.5	8.1
1979	223,129	106,568	116,561	15.4	7.3	8.0
1980	225,527	108,695	116,832	15.3	7.4	8.0
1981	235,842	109,003	126,839	15.8	7.3	8.5
1982	239,903	114,771	125,132	15.8	7.6	8.2
1983	242,570	p110,084	p132,486	15.8	p7.2	p8.6

There were 114,860 marriages registered in 1983 and the crude marriage rate fell to 7.5. Divorces numbered 43,525 and the crude divorce rate fell to 2.8.

MARRIAGE AND DIVORCE

Period	*Number*		*Crude rates per 1,000 of mean population*	
	Marriages	*Divorces*	*Marriage*	*Divorce*
Annual averages—				
1961–65	83,250	7,568	7.6	0.7
1966–70	106,188	10,681	8.8	0.9
1971–75	111,803	17,348	8.3	1.3
1976–80	106,297	45,220	7.4	3.2
Annual totals—				
1978	102,958	40,608	7.2	2.8
1979	104,396	37,854	7.2	2.6
1980	109,240	39,258	7.4	2.7
1981	113,905	41,412	7.6	2.8
1982	117,275	44,088	7.7	2.9
1983	114,860	43,525	7.5	2.9

Births and fertility

Special interest attaches to fertility as an element of population change. Fertility has had considerable impact on the population structure. In 1971, there was a record 276,362 births registered but the number of births declined progressively in each year until 1980, when a slight reversal of the trend occurred. This continued in 1983 when 242,570 births were registered, representing a 1.1 per cent increase from 1982, which followed a 1.7 per cent increase over 1981 and a 4.6 per cent increase of 1981 births over 1980.

Live births

Extensive statistics of live births are available since the 1910s. These include information about sex of children, the incidence of multiple births, marital status of the parents, the number of previous issue to the mother's existing marriage, the duration of marriage, the age of parents and their country of birth.

With rare exceptions, statistics indicate an excess of male over female births. In 1983, there were 124,558 male births and 118,012 female births, a masculinity ratio of 105.5.

The proportion of children born to parents not married to each other at the time of birth has been increasing. In 1961–65, 5.9 per cent of births were ex-nuptial. There were 35,646 ex-nuptial births registered in 1983, 14.7 per cent of the total.

LIVE BIRTHS: SEX AND NUPTIALITY

Period	*Live births*				*Ex-nuptial live births*		
	Males	*Females*	*Persons*	*Masculinity ratio*	*Persons*	*Masculinity ratio*	*Percentage of total*
Annual averages—							
1961–65	119,777	113,175	232,952	105.8	13,798	106.9	5.9
1966–70	123,326	116,999	240,325	105.4	18,937	105.1	7.9
1971–75	130,047	123,389	253,436	105.4	24,516	106.7	9.7
1976–80	115,783	109,605	225,388	105.6	25,062	106.3	11.1
Annual totals—							
1978	114,964	109,217	224,181	105.3	24,744	106.7	11.0
1979	114,613	108,516	223,129	105.6	26,110	103.9	11.7
1980	115,948	109,579	225,527	105.8	28,076	106.8	12.4
1981	121,170	114,672	235,842	105.7	31,200	107.5	13.2
1982	123,254	116,649	239,903	105.7	32,958	105.9	13.7
1983	124,558	118,012	242,570	105.5	35,646	106.2	14.7

About 1 per cent of confinements result in twin births and about one in 10,000 in triplets. Quadruplets occur about once in 250,000 confinements. The likelihood of multiple confinement is about 0.9 per cent for the first nuptial confinement, rising to about 1 per cent at the second confinement and to as much as 1.5 per cent at the fourth and subsequent confinements. The incidence of multiple births also rises with age of mother.

Since the 1950s, there has been a decline in the proportion, and since 1971 in the number, of women having three or more children to their marriage. During the 1950s and early 1960s the median age of mother at first nuptial birth declined, but in recent years it has risen. In 1983, median age at first birth was 25.7 years.

NUPTIAL CONFINEMENTS: BIRTH ORDER

Period	*Birth order*							*Total nuptial (a)*	*Total ex-nuptial*	*Total confinements*
	1	*2*	*3*	*4*	*5*	*6*	*7 and over*			
NUMBER OF CONFINEMENTS										
Annual averages—										
1961–65	69,281	57,971	40,818	23,612	12,125	6,160	6,862	216,829	13,655	230,483
1966–70	80,999	62,930	37,446	18,899	8,961	4,489	5,213	218,937	18,707	237,644
1971–75	88,120	74,641	36,914	15,216	6,006	2,805	2,959	226,674	24,299	250,973
1976–80	77,877	69,291	34,288	11,119	3,332	1,278	1,173	198,373	24,851	223,224
Annual totals—										
1978	76,999	68,759	34,783	11,248	3,307	1,224	1,134	197,461	24,538	221,999
1979	77,032	67,250	34,387	11,100	3,124	1,140	1,050	195,084	25,884	220,968
1980	78,680	66,247	34,167	11,084	3,207	1,179	884	195,492	27,826	223,318
1981	82,476	67,627	35,445	11,750	3,282	1,113	880	202,579	30,956	233,535
1982	83,300	69,963	34,670	11,631	3,193	1,162	854	204,775	32,679	237,454
1983	83,466	70,427	34,081	11,343	3,108	1,059	819	204,779	35,335	240,114
MEDIAN AGE OF MOTHER										
Annual averages—										
1961–65	23.1	25.7	28.3	30.6	32.5	33.9	35.0	26.5	22.5	26.4
1966–70	23.1	25.6	28.2	30.5	32.5	34.1	35.4	25.9	21.4	25.7
1971–75	23.6	26.0	28.2	30.6	32.5	34.1	36.8	25.9	21.1	25.6
1976–80	24.8	26.6	28.8	30.6	32.5	34.2	37.3	26.6	21.6	26.3
Annual totals—										
1978	24.9	26.6	28.7	30.5	32.5	34.0	38.0	26.7	21.6	26.3
1979	25.1	26.8	28.9	30.7	32.4	34.2	36.8	26.9	21.6	26.5
1980	25.2	27.0	29.1	30.9	32.7	34.1	37.2	27.0	21.9	26.6
1981	25.3	27.2	29.2	30.9	32.6	34.4	36.9	27.1	22.1	26.7
1982	25.5	27.4	29.4	31.1	32.9	34.5	36.8	27.3	22.2	26.8
1983	25.7	27.5	29.4	32.1	32.8	34.3	36.6	27.4	22.5	26.9

(a) Includes those for whom birth order was not stated.

Fertility

The general fertility rate, which is the number of births to women of any age per thousand females aged 15–44, is the simplest measure of fertility. The rates have been calculated for the three years' births around each census from 1881 and provide a consistent series for nuptial and ex-nuptial fertility as well as for total fertility.

The rates show a substantial decline in fertility over the total period with a low point in 1932–34 and a minor recovery, peaking in 1960–62. By 1980–82, however, the rates had again declined, this time to the lowest level recorded during the past 100 years. The 1980–82 general rate of 69 births per thousand females aged 15–44 was only 41 per cent of the rate in 1880–82.

FERTILITY RATES: AUSTRALIA

Period	*Births per 1,000 women aged 15–44 years*	*Nuptial births per 1,000 married women aged 15–44 years*	*Ex-nuptial births per 1,000 single, widowed or divorced women aged 15–44 years*	*Index numbers (base year 1900–02=100)*		
				Births per 1,000 women aged 15–44 years	*Nuptial births per 1,000 married women aged 15–44 years*	*Ex-nuptial births per 1,000 single, widowed or divorced women*
1880–82	170	321	14	145	137	108
1890–92	159	332	16	136	141	123
1900–02	117	235	13	100	100	100
1910–12	117	236	13	100	100	100
1920–22	107	197	11	91	84	85
1932–34	71	131	7	61	56	54
1946–48	104	160	11	89	68	85
1953–55	109	149	14	93	63	108
1960–62	112	154	18	96	66	138
1965–67	95	132	21	81	56	162
1970–72(*a*)	97	131	28	83	56	215
1975–77(*a*)	76	104	22	65	44	169
1980–82(*a*)	69	99	23	59	42	177

(*a*) Rates expressed per 1,000 estimated resident women aged 15-44 years.

Age specific birth rates provide a measure of changing patterns of fertility within the fertile ages. The sum of these rates *is the total fertility rate.* The total fertility rate represents the number of children a woman would bear in her lifetime if she experienced the rates of the year shown.

The total fertility rate was declining until 1980 but rose again in 1981 and has remained stable in 1982 and 1983.

The continuing downward trend in the fertility of females aged 15-24 is currently being offset by increases for those aged 25-34.

AGE-SPECIFIC BIRTH RATES(*a*)

Period	*Age group (years)*							*Total fertility (b)*
	15–19	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	
1961–65	46.5	204.0	207.1	122.4	59.2	17.5	1.2	3.289
1966–70	49.4	172.6	187.6	103.0	46.8	12.9	1.0	2.866
1971–75	48.0	154.0	166.9	85.0	33.7	8.5	0.6	2.484
1976–80	30.7	116.4	143.8	73.8	23.7	4.8	0.3	1.968
1977	32.1	122.0	145.7	74.1	23.9	5.0	0.3	2.016
1978	29.9	115.8	144.0	73.4	23.5	4.5	0.2	1.957
1979	28.5	109.1	142.5	73.9	23.6	4.6	0.3	1.913
1980	27.6	107.0	141.0	75.1	23.7	4.4	0.3	1.895
1981	28.2	107.4	145.2	77.6	24.5	4.5	0.3	1.938
1982	27.4	103.9	145.0	80.6	25.6	4.5	0.3	1.937
1983	26.6	102.8	146.4	81.6	25.0	4.4	0.2	1.935

(*a*) Number of births per 1,000 women in each age group. Excludes particulars of full-blood Aboriginals before 1966. Rates from 1971 have been revised using estimated resident population introduced after the 1981 Census. (*b*) The sum of the age specific rates multiplied by 5 and divided by 1,000. This is the number of children a woman would bear in her lifetime if she experienced the rates of the year shown.

The gross reproduction rate is derived from total fertility and the ratio of female to total births. It indicates the number of female children who would be born on average to women supposing the rates from which it was calculated were to apply throughout the reproductive period. It is an indication of the extent to which the population is reproducing itself except that it does not allow for females who fail to survive to the end of the childbearing period. *The net reproduction rate* allows for such mortality. It is obtained by multiplying the age-specific rates by the survivor proportions in the corresponding age group of the stationary or life table population. Mortality in childhood and young adulthood is now so low that there is little difference between current gross and net reproduction rates.

GROSS AND NET REPRODUCTION RATES

Period	*Gross reproduction rate*	*Net reproduction rate*	*Life tables used*
1961(*a*)	1.728	1.672	1960–62
1966	1.401	1.357	1965–67
1971	1.403	1.362	1971
1976	1.004	0.981	1976
1980	0.921	0.903	1980
1981	0.942	0.925	1981
1982	0.942	0.924	1982
1983	0.940	0.923	1983

(*a*) Excludes particulars of full-blood Aboriginals.

Mortality

The number of deaths per year is in excess of 100,000. The increase from previous decades arises from the overall growth of the population, and from the advanced age of an increasing proportion of the population. The crude death rate, which fell from over 12 per 1,000 at the beginning of the century to 7.6 per 1,000 in 1982, can be expected to rise slowly as a result of further ageing of the population, unless there is a more than off-setting drop in age specific death rates.

General mortality

Between 1953–55 and 1960–62 mortality declined in every age-group. Between 1960–62 and 1970–72 there were further declines in most age groups, particularly among infants. However, increases in mortality were recorded for males aged 15–24 years. Since 1970–72, there have been further decreases in mortality at most ages.

Mortality is greater for males than for females at every age. It is relatively high in the first year of life (10.5 per 1,000 males and 8.8 per 1,000 females in 1983), very low in childhood and young adulthood, and then rises in middle and old age.

AGE-SPECIFIC DEATH RATES(*a*)

Age group (years)	*1956–60 (b)*	*1961–65 (b)*	*1966–70 (b)*	*1971–75 (b)*	*1976–80 (b)*	*1980*	*1981*	*1982*	*1983*
MALES									
Under 1	24.0	22.0	21.0	18.4	13.6	12.1	11.5	11.8	10.5
1–4	1.3	1.1	1.0	0.9	0.7	0.7	0.6	0.7	0.6
5–9	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.4	0.3
10–14	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.3
15–19	1.4	1.2	1.4	1.5	1.4	1.3	1.2	1.3	1.1
20–24	1.8	1.7	1.8	1.7	1.7	1.6	1.5	1.6	1.5
25–29	1.5	1.5	1.5	1.3	1.4	1.4	1.3	1.4	1.4
30–34	1.8	1.7	1.6	1.4	1.3	1.2	1.2	1.3	1.2
35–39	2.3	2.4	2.4	2.1	1.9	1.7	1.7	1.6	1.4
40–44	3.5	3.7	3.8	3.4	3.0	2.8	2.6	2.5	2.3
45–49	5.9	6.2	6.2	6.0	5.2	4.9	4.5	4.5	3.9
50–54	10.0	10.3	10.4	9.6	8.6	8.3	7.9	7.5	7.2
55–59	16.9	16.8	17.2	15.9	13.8	13.0	13.0	12.7	12.3
60–64	26.6	27.4	27.8	25.5	22.2	20.9	19.8	20.0	19.0
65–69	42.0	42.2	44.3	39.3	35.3	33.5	32.3	33.1	30.6
70–74	63.5	64.7	67.0	61.2	54.2	52.1	52.0	52.0	47.9
75–79	97.5	97.2	102.7	95.3	84.7	82.0	79.8	82.8	77.3
80–84	145.0	145.0	149.2	141.2	127.9	122.6	120.2	124.8	116.8
85 and over	251.2	243.7	245.9	231.7	210.7	203.3	206.8	217.1	204.5

AGE-SPECIFIC DEATH RATES(*a*)

Age group (years)	*1956–60 (b)*	*1961–65 (b)*	*1966–70 (b)*	*1971–75 (b)*	*1976–80 (b)*	*1980*	*1981*	*1982*	*1983*
FEMALES									
Under 1	19.1	17.2	16.0	14.0	10.7	9.6	8.8	9.2	8.8
1–4	1.1	0.9	0.8	0.7	0.5	0.5	0.5	0.5	0.5
5–9	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2
10–14	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
15–19	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.4
20–24	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
25–29	0.7	0.7	0.7	0.6	0.5	0.4	0.5	0.5	0.5
30–34	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.5	0.6
35–39	1.6	1.5	1.5	1.3	1.0	0.9	0.9	0.8	0.9
40–44	2.4	2.3	2.3	2.1	1.8	1.6	1.4	1.5	1.3
45–49	3.9	3.7	3.7	3.5	2.8	2.5	2.7	2.5	2.3
50–54	5.7	5.6	5.9	5.2	4.5	4.1	3.8	4.2	4.0
55–59	8.7	8.3	8.7	8.0	6.8	6.4	6.2	6.3	6.1
60–64	13.8	13.6	13.6	12.2	10.8	9.8	9.7	10.1	9.6
65–69	23.0	21.7	22.1	19.4	16.9	15.9	15.7	16.0	15.0
70–74	38.8	37.4	37.3	33.1	27.9	26.3	25.5	25.7	25.2
75–79	63.9	63.3	63.6	57.3	48.4	45.6	44.3	45.3	42.6
80–84	113.5	107.5	105.9	97.4	84.0	79.8	75.9	79.7	74.3
85 and over	215.6	205.1	201.0	187.9	168.4	163.7	160.9	171.2	156.0

(*a*) Number of deaths per 1,000 of population of the same age group and sex. (*b*) Average annual rate per 1,000 of population.

AGE AT DEATH, 1982

	Number			*Per cent*		
Age at death (years)	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Under 1	1,425	1,057	2,482	2.3	2.1	2.2
1–4	313	226	539	0.5	0.4	0.5
5–9	223	108	331	0.4	0.2	0.3
10–14	263	121	384	0.4	0.2	0.3
15–19	827	263	1,090	1.3	0.5	0.9
20–24	1,084	306	1,390	1.7	0.6	1.2
25–29	893	330	1,223	1.4	0.6	1.1
30–34	812	327	1,139	1.3	0.6	1.0
35–39	859	439	1,298	1.4	0.9	1.1
40–44	1,090	629	1,719	1.7	1.2	1.5
45–49	1,728	910	2,638	2.7	1.8	2.3
50–54	2,954	1,583	4,537	4.7	3.1	4.0
55–59	4,742	2,320	7,062	7.5	4.5	6.2
60–64	6,069	3,340	9,409	9.6	6.5	8.2
65–69	8,338	4,646	12,984	13.2	9.0	11.3
70–74	9,531	6,038	15,569	15.1	11.7	13.6
75–79	9,162	7,265	16,427	14.5	14.1	14.3
80–84	6,823	8,325	15,148	10.8	16.2	13.2
85–89	3,891	7,359	11,250	6.1	14.3	9.8
90–94	1,804	4,397	6,201	2.8	8.5	5.4
95–99	415	1,291	1,706	0.7	2.5	1.5
100 and over	35	196	231	0.1	0.4	0.2
Not stated	14	—	14	—	—	—
Total	**63,295**	**51,476**	**114,771**	**100.0**	**100.0**	**100.0**

Life expectancy

The life table is a life history of a hypothetical group, or cohort, of people, as it is diminished gradually by deaths. They form the basis for the *stationary population* which is the population that would result from a constant number of births each year which had been subject at each age to the life table mortality rates.

Since 1921, official life tables have been calculated from the separate male and female populations as enumerated at the census, and the deaths of the three years around the census. Earlier life tables were compiled for decennial periods 1881–90, 1891–1900 and 1901–10. Life tables have also been prepared in recent years using annual age estimates and the deaths of a particular year.

A key value in life tables is the expectation of life remaining at each age. Expectation of life, particularly at birth, improved at every age in the first half of this century. Between 1953–55 and 1970–72 there was little change in expectation of life. However, since 1970–72 there have been significant improvements, particularly in expectation of life at birth which has increased between 1970–72 and 1983 from 68.1 years to 72.1 for males and from 74.8 years to 78.7 for females.

COMPLETE EXPECTATION OF LIFE AT SELECTED AGES

	Expectation of life (a) at									
	Birth		*1 year of age*		*20 years of age*		*40 years of age*		*60 years of age*	
Period	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
1901–10 (*b*)(*c*)	55.2	58.8	60.0	62.9	44.7	47.5	28.6	31.5	14.4	16.2
1920–22 (*b*)(*c*)	59.2	63.3	62.7	66.0	47.0	50.0	30.1	33.1	15.1	17.2
1932–34 (*b*)(*c*)	63.5	67.1	65.5	68.7	48.8	51.7	31.1	34.0	15.6	17.7
1946–48 (*b*)(*c*)	66.1	70.6	67.3	71.5	49.6	53.5	31.2	34.9	15.4	18.1
1953–55 (*b*)(*c*)	67.1	72.8	67.9	73.5	50.1	55.1	31.7	36.0	15.5	18.8
1960–62 (*b*)(*c*)	67.9	74.2	68.5	74.5	50.4	56.2	31.8	37.0	15.6	19.5
1965–67 (*c*)	67.6	74.2	68.1	74.4	50.0	56.0	31.4	36.9	15.3	19.5
1970–72 (*c*)	68.1	74.8	68.5	74.9	50.4	56.5	31.8	37.3	15.5	19.9
1975–77 (*c*)	69.6	76.6	69.6	76.5	51.5	58.0	32.8	38.7	16.4	21.0
1978 (*d*)	70.3	77.3	70.3	77.2	52.1	58.6	33.4	39.3	16.8	21.5
1979(*d*)	70.9	77.9	70.8	77.7	52.5	59.1	33.8	39.8	17.1	21.9
1980(*d*)	71.0	78.1	70.8	77.8	52.6	59.3	33.9	39.9	17.1	21.9
1981(*d*)	71.4	78.4	71.2	78.1	52.9	59.5	34.1	40.1	17.3	22.1
1982(*d*)	71.2	78.2	71.1	77.9	52.8	59.3	34.1	39.9	17.1	21.9
1983(*d*)	72.1	78.7	71.9	78.4	53.5	59.8	34.7	40.4	17.7	22.3

(*a*) The average number of additional years a person of a given age and sex might expect to live if the age-specific death rates of the given period continued throughout his/her lifetime. (*b*) Excludes particulars of full-blood Aboriginals prior to 1965–67. (*c*) Based on Official Life Tables calculated by the Australian Government Actuary. (*d*) Based on annual life tables calculated by the Australian Statistician. These tables are based on estimated resident populations.

Marriages

Marriages in Australia are solemnised under Federal legislation, namely the *Marriage Act* 1961 as amended. The original Act, which superseded State Acts, came into part operation on 6 May 1961. The first regulations and major provisions under the Act commenced on 1 September 1963.

Under the Act, marriages may be celebrated by Ministers of Religion registered as Authorised Celebrants, Registrars or other persons whose function is the registration of marriages, and other authorised civil and religious celebrants.

One month's written notice of intended marriage must be given to the Celebrant, though this may be shortened in special circumstances. Celebrants issue marriage certificates to the parties and transmit copies of the certificates to Registrars in the States or Territories in which the marriages took place.

The marriageable age under the Act is 18 for males and 16 for females. After inquiry, a Judge or Magistrate may authorise, in exceptional and unusual circumstances, the marriage of a person below marriageable age, but not below 16 for males and 14 for females.

Minors require, generally speaking, parental consent. A prescribed authority, usually a Registrar, may dispense with consent where such consent can be presumed and it would be unreasonable to require it. If parental consent is refused unreasonably, a Magistrate may give consent in lieu of the parent or guardian. Such a Magistrate's decision is subject to appeal. The age of majority was reduced in 1973 from 21 to 18. Because the marriageable age for males is also 18, the only persons of marriageable age requiring parental consent are now females between the ages of 16 and 18.

The Act makes provision, on a uniform basis, in respect of prohibited relations, other grounds for void marriages, legitimation, marriages overseas, and pre-marital education.

In 1983, 76.2 per cent of grooms and 77.5 per cent of brides were marrying for the first time; approximately 2.6 per cent were widowers and 3.0 per cent widows; and 21.2 per cent of grooms and 19.5 per cent of brides had been divorced. The proportion of marriages involving divorced persons increased sharply in 1976 and slightly thereafter. This is associated with the larger numbers of divorces granted since the introduction of the *Family Law Act* 1975.

Median age at first marriage declined during the 1950s and 1960s but has risen slightly in recent years. In 1983 it was 24.9 years for males and 22.7 for females. In 1983, 2.2 per cent of grooms and 12.3 per cent of brides married under the age of 20.

MARITAL STATUS AT MARRIAGE

Period	Grooms				Brides			
	Never married	*Widowed*	*Divorced*	*Total bridegrooms*	*Never married*	*Widowed*	*Divorced*	*Total brides*
				NUMBER				
Annual averages—								
1961–65	75,384	3,063	4,803	83,250	74,962	3,218	5,070	83,250
1966–70	96,438	3,320	6,430	106,188	96,341	3,568	6,279	106,188
1971–75	99,203	3,473	9,126	111,802	99,287	3,810	8,705	111,802
1976–80	82,344	3,394	20,559	106,297	82,987	4,022	19,288	106,297
Annual totals—								
1978	79,581	3,279	20,098	102,958	80,142	3,818	18,998	102,958
1979	80,226	3,266	20,904	104,396	80,893	3,996	19,507	104,396
1980	83,950	3,264	22,026	109,240	84,770	3,920	20,550	109,240
1981	87,460	3,152	23,293	113,905	88,308	3,727	21,870	113,905
1982	89,858	2,988	24,429	117,275	90,844	3,579	22,852	117,275
1983	87,568	2,959	24,333	114,860	89,029	3,457	22,374	114,860
				MEDIAN AGES				
Annual averages—								
1961–65	24.2	56.6	40.4	24.7	21.3	49.2	36.6	21.7
1966–70	23.5	56.7	39.8	23.9	21.2	50.1	36.1	21.5
1971–75	23.3	57.8	37.3	23.9	21.0	51.1	33.0	21.4
1976–80	23.9	58.4	36.1	25.4	21.6	51.6	32.5	22.7
Annual totals—								
1978	23.9	58.5	35.9	25.4	21.6	51.8	32.4	22.7
1979	24.1	58.6	36.1	25.6	21.7	52.3	32.6	22.9
1980	24.2	58.6	35.8	25.7	21.9	52.0	32.8	23.0
1981	24.4	59.1	36.0	25.9	22.1	52.1	32.9	23.3
1982	24.6	59.4	36.1	26.1	22.4	51.5	33.1	23.6
1983	24.9	59.7	35.3	25.3	22.7	52.3	33.4	23.9

AGE AT MARRIAGE

Period	Age								Total
	Under 20	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50 and over*	
					GROOM				
Annual averages—									
1961–65	5,278	38,845	20,344	7,495	3,799	2,154	1,498	3,837	83,250
1966–70	7,917	55,824	23,398	7,008	3,544	2,473	1,763	4,258	106,185
1971–75	8,427	59,058	24,374	7,408	3,425	2,376	1,970	4,765	111,802
1976–80	4,830	45,796	26,139	11,245	5,500	3,512	2,822	6,452	106,297
Annual totals—									
1978	4,592	44,011	25,337	11,229	5,451	3,447	2,691	6,200	102,958
1979	4,069	43,778	26,537	11,687	5,706	3,576	2,710	6,333	104,396
1980	3,943	45,519	28,256	12,785	5,928	3,690	2,737	6,382	109,240
1981	3,619	46,114	30,522	13,674	6,800	3,958	2,686	6,532	113,905
1982	3,288	45,811	32,336	14,751	7,605	4,347	2,823	6,314	117,275
1983	2,575	42,956	32,719	15,115	7,954	4,390	2,837	6,314	114,860

AGE AT MARRIAGE

Period	Age Under 20	20–24	25–29	30–34	35–39	40–44	45–49	50 and over	Total
BRIDE									
Annual averages—									
1961–65	23,454	39,370	8,760	3,553	2,416	1,715	1,367	2,616	83,250
1966–70	30,475	53,356	10,334	3,521	2,143	1,764	1,545	3,047	106,185
1971–75	34,319	51,846	12,363	4,280	2,279	1,733	1,621	3,362	111,802
1976–80	23,006	45,938	16,560	7,700	4,092	2,669	2,124	4,208	106,297
Annual totals—									
1978	22,290	44,094	16,114	7,810	4,026	2,525	2,121	3,978	102,958
1979	20,382	46,029	16,974	7,873	4,225	2,803	1,950	4,160	104,396
1980	19,466	49,467	18,267	8,591	4,370	2,858	1,965	4,256	109,240
1981	18,769	51,769	20,039	9,354	4,871	3,053	1,992	4,058	113,905
1982	17,045	53,267	22,292	10,031	5,510	3,150	2,117	3,863	117,275
1983	14,119	52,631	23,066	10,310	5,596	3,209	2,118	3,811	114,860

Marriage rates of the marriageable population provide a measure of changing marriage patterns. Marriage rates have been calculated for the three years around the census per thousand single, widowed and divorced males, females and persons aged 15 years and over.

The rates for 1980–82 were 57.3 for males, 54.0 for females, and 55.6 for persons.

The proportion of all marriages celebrated by civil officers rose to 39.4 per cent of all marriages registered in 1983.

Divorce

The *Matrimonial Causes Act 1959–66* provided for dissolution of marriage on one or more of 14 grounds. It also provided for nullity of marriage and for judicial separation. This Act, which came into operation in 1961, replaced separate State and Territory legislation. The *Family Law Act 1975*, which came into operation on 5 January 1976, provides for a single ground for divorce—irretrievable breakdown of marriage—and for nullity of marriage on the ground that the marriage is void.

Statistics prior to 1976 in the following tables relate to divorces granted under the Matrimonial Causes Act or under previous State or Territory legislation.

When comparing the number and rate of decrees granted from year to year it should be borne in mind that the availability of judges to hear petitions lodged can affect the number of decrees granted. A rise in one year may be due wholly or in part to the clearing of a backlog of cases from an earlier year. In addition, changes to legislation, rules or practices may also affect the number of divorce applications.

Following a sharp rise in the number of divorces in 1976, the first year of Family Law legislation, the number dropped by 29 per cent to 45,150 in 1977. However, this number was still 86 per cent higher than the number granted in 1975 under Matrimonial Causes legislation.

DIVORCES

Period	Petitions filed	Petitions granted
Annual averages—		
1961–65	9,955	7,542
1966–70	13,089	10,681
1971–75	22,704	17,348
1976–80	45,503	45,220
Annual totals—		
1978	40,918	40,608
1979	37,393	37,854
1980	41,482	39,258
1981	43,520	41,412
1982	43,055	44,088
1983	42,569	43,525

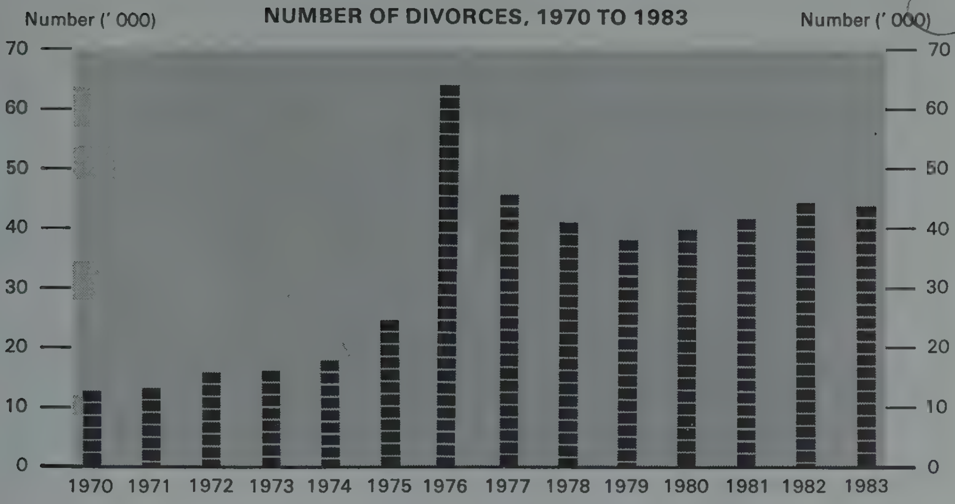


PLATE 15

Duration of marriage, age at marriage and age at divorce

The median duration of marriages dissolved in 1983 was 10.5 years. Of the 43,525 marriages which were dissolved, 47.6 per cent had lasted less than ten years, 33.5 per cent between ten and twenty years and 18.9 per cent twenty years or more.

DIVORCE, YEARS MARRIED

	Years married							
Period	*0–4*	*5–9*	*10–14*	*15–19*	*20–24*	*25 and over*	*Total*	*Median duration of marriage*
Annual averages—								
1961-65	501	1,999	1,747	1,329	926	1,040	7,542	13.6
1966-70	903	2,937	2,146	1,685	1,429	1,581	10,681	13.4
1971-75	1,693	5,478	3,432	2,398	1,930	2,417	17,349	11.9
1976-80	8,234	13,112	8,359	5,556	4,265	5,694	45,220	10.6
Annual totals—								
1978	7,839	11,599	7,504	4,941	3,755	4,970	40,608	10.5
1979	7,621	10,754	6,929	4,646	3,502	4,402	37,854	10.3
1980	8,115	11,138	7,558	4,644	3,496	4,306	39,258	10.2
1981	8,606	11,800	8,118	4,941	3,550	4,397	41,412	10.2
1982	8,952	12,323	8,792	5,744	3,819	4,456	44,088	10.4
1983	9,046	11,685	8,836	5,756	3,737	4,461	43,525	10.5

In 1983, the median age at marriage of divorcing husbands was 23.7 years and of wives 21.1 years. Of husbands, 9.3 per cent had been aged under 20 at marriage and 52.0 per cent aged 20–24; of wives 35.0 per cent had been aged under 20 and 43.9 per cent between 20–24.

DIVORCE, MEDIAN AGE AT MARRIAGE

Period	Median age at marriage of— Husband	Wife
Annual averages—		
1966-70	24.2	21.7
1971-75	23.5	20.9
1976-80	23.4	20.8
Annual—		
1978	23.3	20.8
1979	23.4	20.8
1980	23.4	20.9
1981	23.5	20.9
1982	23.6	21.0
1983	23.7	21.1

At time of divorce, the median age of husbands was 36.3 years and of wives 33.7 years. A total of 22.2 per cent of husbands and 34.3 per cent of wives were aged under 30 years when the marriage was dissolved.

Children of the marriage

DISSOLUTION OF MARRIAGE, NUMBER OF CHILDREN

Period	Number of children of the marriage 0	1	2	3	4	5 and over	Total dissolutions	Total children	Average number of children
Annual averages—									
1961–65	2,834	1,950	1,611	753	279	143	7,568	9,347	1.2
1966–70	3,628	2,656	2,428	1,212	497	261	10,681	14,588	1.4
1971–75	5,628	4,062	4,200	2,147	874	438	17,349	24,840	1.4
1976–80	17,013	10,186	10,970	4,746	1,633	671	45,220	55,218	1.2
Annual totals—									
1978	14,965	9,127	10,047	4,336	1,530	603	40,608	51,599	1.3
1979	14,641	8,167	9,488	3,876	1,243	439	37,854	46,130	1.2
1980	15,471	8,412	9,890	3,900	1,173	412	39,258	46,836	1.2
1981	16,127	8,898	10,621	4,141	1,231	394	41,412	49,616	1.2
1982	16,931	9,501	11,544	4,556	1,179	377	44,088	53,010	1.2
1983	16,697	9,469	11,422	4,439	1,189	309	43,525	52,059	1.2

For the years in which the Matrimonial Causes Act was in force, children of the marriage were defined as living children under the age of 21 at the time of the petition. Under previous legislation there were differences between States. The Family Law Act defines them as children of the marriage if they were under the age of 18 at the time of application. In 1983, of the dissolutions granted under the Family Law Act, no children were involved in 38.4 per cent of the dissolutions, while 21.8 per cent of the dissolutions involved 1 child, 26.2 per cent 2 children, and 13.6 per cent 3 or more children.

INTERNATIONAL MOVEMENTS

Statistics of overseas arrivals and departures are compiled from incoming and outgoing passenger cards which are collected from all travellers under the *Migration Act 1958*. Earlier statistics were obtained from passenger lists required under various Acts.

Since 1924, overseas travellers have been classified into two principal categories which distinguish movements for short terms from movements for longer periods (including permanent movements). Revised questions for travellers were introduced in 1958 and again in 1974. The 1958 revision enabled the separation, after 1959, of permanent from other long-term movements and also the identification of former settlers departing permanently. The 1974 revisions improved the classification without change of principle. The categories of overseas movement are:

Permanent—consists of persons arriving with the stated intention of settling permanently in Australia (settlers), and Australian residents (including former settlers) departing with the stated intention of residing permanently abroad. Before 1974, former settlers were not so classified unless they had spent at least 12 months in Australia.

Long-term—consists of overseas visitor arrivals and departures of Australian residents with the stated intention of staying in Australia or abroad respectively for 12 months or more; and departures of visitors and return of residents who have stayed in Australia or abroad respectively for 12 months or more. Until 1974, Australian residents returning were classified as long-term only if their time spent abroad included a period of 12 months in any one country. Their classification is now governed solely by their total absence from Australia.

Short-term—consists of overseas visitor arrivals and departures of Australian residents whose intended or actual period of stay in Australia or abroad respectively is less than twelve months.

The classification of overseas movements is based on statements made by the traveller on arrival in or departure from Australia. The statistics represent the travellers' intentions at the time of arrival or departure; travellers may subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

An upsurge of international tourism, particularly by Australian residents, occurred in the 1970s. The volume of sea travel has changed little over the period (the figures exclude pleasure cruises in the south west Pacific beginning and ending in Australia), so that in 1983 less than one half of one per cent of arrivals and departures had travelled by ship. Net gain, i.e. the excess of total arrivals over total departures, until recently provided a satisfactory measure of the population gain from international migration. In recent years, however, distortions arising from seasonality of short-term arrivals and departures have become very large. For the purpose of estimating the population of Australia and the States and Territories, therefore, the migration component of population growth has been measured since 1 July 1971 by reference to permanent and long-term movements only.

OVERSEAS ARRIVALS AND DEPARTURES: AUSTRALIA 1961–1983

ARRIVALS

	Permanent and long-term movement				*Short-term movement(a)*				
	Permanent	*Long-term*		*Total permanent and long-term arrivals*		*Overseas visitors*			
Period	*Settlers arriving*	*Australian residents*	*Overseas visitors*		*Australian residents*	*In transit*	*Other*	*Total*	*Total arrivals*
Annual averages									
1961-65 . . .	115,200	22,260	14,770	152,230	117,000	28,700	102,800	131,500	400,700
1966 70 . . .	160,810	36,150	24,480	221,440	259,700	41,500	255,800	297,300	778,400
1971-75 . . .	109,690	57,750	26,250	193,690	631,400	74,400	401,600	475,900	1,301,100
1976-80 . . .	73,820	59,140	28,730	161,700	1,062,100	62,500	622,200	684,700	1,908,500
Annual totals—									
1978	68,420	57,940	28,390	154,750	1,029,500	57,500	573,100	630,600	1,814,800
1979	72,240	61,440	33,450	167,130	1,144,300	68,300	725,000	793,300	2,104,800
1980	94,500	58,760	31,030	184,290	1,194,800	67,300	837,300	904,600	2,283,600
1981	118,740	59,400	34,550	212,690	1,181,400	62,800	874,000	936,700	2,330,800
1982	107,170	53,770	34,270	195,200	1,259,600	64,400	890,200	954,700	2,409,500
1983	78,390	47,810	27,380	153,570	1,219,600	62,300	881,600	943,900	2,317,100

DEPARTURES

	Permanent and long-term movement						*Short-term movement(a)*		
	Permanent			*Long-term*		*Total permanent and long-term departures*			
Period	*Former settlers departing*	*Other residents departing*	*Total permanent departures*	*Australian residents*	*Overseas visitors*		*Australian residents*	*Overseas visitors*	*Total departures*
Annual averages –									
1961-65 . . .	9,700	6,800	16,500	37,910	12,720	67,120	118,600	135,000	320,700
1966 70 . . .	23,190	8,750	31,940	56,220	14,350	102,510	258,800	308,300	669,700
1971 75 . . .	26,620	12,030	38,650	66,430	22,980	128,070	647,600	479,000	1,254,700
1976-80 . . .	13,830	9,920	23,740	59,220	19,840	102,800	1,077,330	655,400	1,835,500
Annual totals—									
1978	14,030	10,930	24,960	58,520	19,640	103,120	1,062,200	597,100	1,762,500
1979	12,670	10,750	23,420	54,270	20,420	98,110	1,175,800	752,400	2,026,300
1980	11,450	9,390	20,840	50,710	19,310	90,860	1,203,600	874,100	2,168,600
1981	11,280	8,580	19,860	46,740	19,020	85,610	1,217,300	900,400	2,203,300
1982	13,350	9,140	22,490	46,890	22,960	92,340	1,286,900	921,500	2,300,700
1983	16,920	8,950	25,870	48,180	26,450	100,510	1,253,000	928,900	2,282,400

(*a*) Statistics of short-term movement since 1974 have been derived from a stratified sample of travellers and are subject to sampling error.

The total number of overseas arrivals and departures (excluding passengers on cruises which commence and complete their journeys in an Australian port) for the year 1983 was 4,599,500, 2 per cent less than for 1982.

New South Wales, with 54.3 per cent of clearances, remained the principal State of arrival and departure in 1983.

Short-term movements accounted for approximately 94 per cent of total movements in 1983.

Changes in the pattern and volume of short-term movements are shown in Chapter 26, under the heading 'Tourism'.

Migration to Australia

Migration to Australia is regulated by the *Migration Act 1958* which came into force on 1 June 1959. Any person entering Australia after the commencement of the Act without having been granted an entry permit or who is not within an exempted class is a prohibited immigrant. Exempted persons include diplomatic and consular representatives of other countries, and seamen and air crew who enter with leave in Australian ports.

Immigration has contributed substantially to Australia's post-war population growth. In the post-war years, some 3.9 million migrants have arrived, of which it is estimated that more than 80 per cent settled.

Settler arrivals in 1983 totalled 78,390, a decrease of 27.0 per cent from the total for the previous year.

European born settlers continued to be the major source, contributing 43 per cent of the overall settler intake. This was primarily due to the large contribution from the U.K. and Ireland (25 per cent of the total). The number of Asian born settlers was 29,700 which constituted 38 per cent of settler arrivals. New Zealand born settlers constituted the third largest group, after Vietnam, with 5,320 settlers, 7 per cent of the total.

The number of assisted arrivals in 1983 was 12,130. From May 1981 the grant of assisted passage was restricted to refugees.

SETTLERS ARRIVING BY COUNTRY OF LAST RESIDENCE

	Number		*Per cent*	
	1973	*1983*	*1973*	*1983*
South Africa	1,440	2,650	1.4	3.4
Other Africa	2,630	1,860	2.5	2.4
Total Africa	*4,070*	*4,510*	*3.9*	*5.8*
Canada	1,930	1,220	1.8	1.6
U.S.A.	3,240	1,960	3.1	2.5
Other America	4,660	1,600	4.4	2.0
Total America	*9,830*	*4,780*	*9.4*	*6.1*
Bangladesh, India, Pakistan and Sri Lanka	3,710	2,070	3.5	2.6
Indonesia	80	2,620	0.1	3.3
Lebanon	3,130	700	3.0	0.9
Malaysia and Singapore	1,660	5,620	1.6	7.2
Philippines	480	3,750	0.5	4.8
Thailand	110	6,030	0.1	7.7
Turkey	2,570	550	2.4	0.7
Other Asia	3,250	6,640	3.1	8.5
Total Asia	*14,990*	*27,980*	*14.3*	*35.7*
U.K. and Ireland	46,100	19,580	43.9	25.0
Austria	1,550	1,380	1.5	1.8
Germany	2,160	3,840	2.1	4.9
Greece	3,220	630	3.1	0.8
Italy	2,890	610	2.8	0.8
Yugoslavia	4,550	1,470	4.3	1.9
Other Europe	9,170	5,990	8.7	7.6
Total Europe	*69,640*	*33,500*	*66.3*	*42.7*
New Zealand	4,700	6,170	4.5	7.9
Other Oceania	1,780	1,440	1.7	1.8
Total Oceania	*6,480*	*7,610*	*6.2*	*9.7*
Not Stated	*10*	*10*	. .	. .
Total	**105,000**	**78,390**	**100.0**	**100.0**

Each year Australia loses a proportion of its previous migrant intakes. Additionally, partly as a result of the high international mobility of professional and skilled workers, substantial numbers of Australians take up job opportunities overseas.

Eligibility for entry for settlement is restricted to certain family members and fiancees/fiances of Australian residents, to others who possess skills, qualifications, personal or other qualities which represent an economic, social or cultural gain to Australia, and to refugees.

SETTLER ARRIVALS

Period	*Assisted*	*Unassisted*	*Total*
Annual averages—			
1966–70	107,500	53,320	160,810
1971–75	58,180	51,510	109,690
1976–80	19,660	54,160	73,820
Annual totals—			
1978	19,550	48,870	68,420
1979	19,060	53,170	72,240
1980	26,320	68,180	94,500
1981	29,960	88,780	118,730
1982	20,200	86,970	107,170
1983	12,130	66,270	78,390

SETTLER ARRIVALS BY AGE

	Age in years						
Period	*0–4*	*5–14*	*15–24*	*25–44*	*45–64*	*65 and over*	*All ages*
MALES							
Annual averages—							
1966–70	10,540	15,430	21,180	32,270	5,810	1,240	86,480
1971–75	7,410	10,010	12,880	20,330	3,920	1,250	55,790
1976–80	4,940	7,150	7,710	12,670	2,970	1,390	36,830
Annual totals—							
1978	4,580	6,770	7,460	11,350	2,900	1,380	34,430
1979	4,990	6,840	7,600	12,210	2,870	1,340	35,840
1980	5,950	9,400	10,130	17,820	3,520	1,680	48,500
1981	7,550	12,060	13,100	23,160	4,200	1,790	61,870
1982	6,980	10,960	10,000	21,860	3,790	1,780	55,370
1983	5,220	7,410	6,960	15,330	3,230	1,700	39,830
FEMALES							
Annual averages—							
1966–70	9,910	14,440	17,750	24,130	6,240	1,860	74,330
1971–75	6,950	9,300	13,690	17,450	4,790	1,730	53,900
1976–80	4,640	6,390	8,110	12,170	3,890	1,810	37,000
Annual totals—							
1978	4,060	5,650	7,580	11,200	3,740	1,750	33,990
1979	4,620	6,060	8,440	11,870	3,610	1,800	36,400
1980	5,590	8,330	9,900	15,830	4,200	2,150	46,010
1981	7,070	10,620	11,650	20,840	4,540	2,150	56,870
1982	6,380	9,430	9,800	19,950	4,200	2,060	51,800
1983	4,730	6,360	7,130	14,390	3,960	2,010	38,560
PERSONS							
Annual averages—							
1966–70	20,450	29,870	38,940	56,410	12,050	3,100	160,810
1971–75	14,360	19,310	26,560	37,770	8,710	2,970	109,690
1976–80	9 580	13 550	15,810	24,840	6,860	3,190	73,820
Annual totals—							
1978	8,640	12,420	15,040	22,550	6,640	3,130	68,420
1979	9,610	12,900	16,040	24,080	6,480	3,140	72,240
1980	11,540	17,740	20,030	33,650	7,720	3,830	94,500
1981	14,630	22,680	24,760	44,000	8,740	3,930	118,740
1982	13,360	20,380	19,800	41,810	7,980	3,840	107,170
1983	9,950	13,760	14,090	29,710	7,180	3,710	78,390

SETTLER ARRIVALS BY MARITAL STATUS

	Never married				
Period	Under 15 years	15 years and over	Married	Widowed and divorced	Total
		MALES			
Annual averages—					
1966–70	25,980	25,740	33,670	1,100	86,480
1971–75	17,420	14,750	22,600	1,030	55,790
1976–80	12,100	9,050	14,770	910	36,830
Annual totals—					
1978	11,350	8,450	13,810	830	34,430
1979	11,820	8,450	14,560	1,010	35,840
1980	15,340	12,020	19,760	1,370	48,500
1981	19,600	15,160	25,640	1,470	61,870
1982	17,910	12,180	23,960	1,320	55,370
1983	12,620	9,250	16,890	1,070	39,830
		FEMALES			
Annual averages—					
1966–70	24,340	12,530	34,130	3,330	74,330
1971–75	16,250	9,750	25,060	2,840	53,900
1976–80	11,010	6,440	17,040	2,510	37,000
Annual totals—					
1978	9,700	5,960	15,950	2,380	33,990
1979	10,670	6,610	16,520	2,600	36,400
1980	13,910	7,820	20,990	3,290	46,010
1981	17,630	9,250	26,770	3,220	56,870
1982	15,750	7,940	25,290	2,820	51,800
1983	11,040	6,230	18,390	2,900	38,560
		PERSONS			
Annual averages—					
1966–70	50,320	38,270	67,790	4,430	160,810
1971–75	33,670	24,500	47,660	3,870	109,690
1976–80	23,100	15,490	31,810	3,420	73,820
Annual totals—					
1978	21,050	14,410	29,760	3,210	68,420
1979	22,490	15,060	31,080	3,610	72,240
1980	29,260	19,830	40,750	4,660	94,500
1981	37,230	24,410	52,410	4,690	118,740
1982	33,660	20,120	49,250	4,140	107,170
1983	23,650	15,490	35,280	3,970	78,390

Language

In May 1983 the ABS conducted a survey throughout Australia of persons aged 15 years and over to obtain details of the languages they first spoke, their current usage of these languages and their understanding and usage of later acquired languages. Questions were also asked of the acquisition and use of English by persons whose first language spoken was a non-English language.

The survey indicated that there were an estimated 11,329,300 persons aged 15 years and over in Australia and of these 9,428,800 (83 per cent) spoke English as a first language. Of these, 1,225,800 persons (13 per cent) had acquired at least one non-English language by assimilation or education.

There were an estimated 1,703,400 persons for whom English was not a first language and of these 570,700 (33 per cent) had acquired at least one additional non-English language.

There were an estimated 1,900,400 person who first spoke a non-English language (of whom 197,400 spoke English plus a non-English first language). Of these persons, 73.4 per cent spoke the non-English language in the home and 86.7 per cent spoke it socially. 54 per cent of persons read in their non-English first language and 63.4 per cent wrote in that language.

Generally, persons who first spoke in a non-English language used English more frequently than they did their non-English first language. Overall, 86.7 per cent of persons spoke English in the home, 90.1 per cent spoke it socially, 84.3 per cent read in English and 70.9 per cent wrote in English.

The survey found that 3.5 per cent of persons with a non-English first language did not use English at all, 11.6 per cent could speak but did not read or write in English, and 7.1 per cent of persons no longer used their non-English first language.

Further information is available from the ABS publications *Language Survey, Australia May 1983* (Catalogue Number 4503.0) and *Language in Australia* (4504.0).

PERSONS AGED 15 YEARS AND OVER: LANGUAGES FIRST SPOKEN, WHETHER ENGLISH ACQUIRED AND NUMBER OF ACQUIRED NON-ENGLISH LANGUAGES, AUSTRALIA, MAY 1983

Languages first spoken	*Total persons*	*Number of acquired non-English languages*		
		None	*One*	*Two or more*
		%	%	%
Persons with English as a language first spoken(*a*)	9,625,900	86.8	10.2	3.0
Persons with a non-English language only first spoken(*b*)	1,703,400	66.5	22.4	11.1
English acquired	1,656,400	66.0	22.7	11.3
English not acquired	47,000	84.5	13.6	*
Total	**11,329,300**	83.7	12.0	4.2

* Data suppressed due to high sampling variability.

(*a*) Includes 197,000 persons who spoke English and another language as their first languages. (*b*) Includes 28,600 persons with two or more non-English first languages.

PERSONS AGED 15 YEARS AND OVER WITH A NON-ENGLISH FIRST LANGUAGE SPOKEN(*a*): LANGUAGE FIRST SPOKEN BY ENGLISH USAGE, AUSTRALIA, MAY 1983

First language spoken other than English	*Total persons*	*English spoken*				*English read*	*English written*
		Home	*Work(b)*	*Socially*	*Elsewhere*		
		%	%	%	%	%	%
Italian	440,800	84.6	92.8	88.7	93.7	80.2	62.9
Greek	227,200	84.5	94.5	86.6	95.1	75.8	60.6
German	165,600	96.0	97.9	99.0	99.2	98.0	88.7
Dutch	110,500	97.0	97.9	99.0	99.9	98.5	94.3
Polish	86,000	91.0	96.0	94.6	97.4	91.1	72.8
Chinese(*c*)	84,900	75.0	86.3	80.4	89.8	75.3	70.7
Arabic/Lebanese	77,600	79.7	90.7	79.0	91.0	71.9	58.0
Other Yugoslavian(*c*)	66,800	85.6	96.4	90.5	96.2	72.7	53.2
Croatian	65,800	90.3	95.3	90.8	98.0	85.2	60.0
Maltese	59,800	94.0	94.4	94.9	97.9	85.9	76.9
Spanish	56,500	76.7	90.4	84.3	92.0	83.5	66.0
French	54,700	91.9	94.4	95.8	97.7	96.5	89.9
Hungarian	37,000	88.5	97.6	89.2	95.8	90.0	73.5
Russian	27,500	80.2	94.4	83.6	92.3	86.4	70.3
Serbian	26,600	89.3	95.8	91.4	97.5	88.7	64.7
Vietnamese	24,500	56.2	73.8	71.3	86.9	66.3	56.1
Indian(*c*)	22,400	98.0	98.6	98.1	100.0	98.0	98.0
Turkish	20,300	68.0	87.5	73.2	89.7	52.3	32.3
Latvian	20,000	85.7	98.4	93.9	96.8	95.9	82.7
Other(*d*)	225,800	89.5	95.5	93.4	97.1	89.6	81.1
Total	**1,900,400**	86.7	94.1	90.1	95.5	84.3	70.9

Note: Persons may be counted in more than one column.

(*a*) Includes 197,000 persons who spoke English and another language as their first language. (*b*) Proportion of persons in the labour force who used English at work. (*c*) Includes all relevant dialects. (*d*) All languages not elsewhere included.

PERSONS AGED 15 YEARS AND OVER WITH A NON-ENGLISH FIRST LANGUAGE SPOKEN(*a*): FIRST LANGUAGE SPOKEN BY USAGE OF THAT LANGUAGE, AUSTRALIA, MAY 1983

First language spoken other than English	*Total persons*	*Speaks the language*				*Reads in the language*	*Writes in the language*
		Home	*Work(b)*	*Socially*	*Elsewhere*		
		%	%	%	%	%	%
Italian	440,800	81.9	48.0	94.0	60.9	64.1	61.7
Greek	227,200	89.8	49.6	95.4	67.2	78.2	76.9
German	165,600	48.2	20.4	72.1	28.3	62.3	59.2
Dutch	110,500	41.0	10.3	67.6	19.4	54.0	55.3
Polish	86,000	59.9	23.7	83.0	42.2	55.3	58.6
Chinese(*c*)	84,900	84.0	45.5	91.8	62.7	63.1	61.5
Arabic/Lebanese	77,600	92.5	34.3	94.6	59.5	65.1	64.2
Other Yugoslavian(*c*)	66,800	87.4	47.1	91.5	54.3	63.9	70.9
Croatian	65,800	80.3	36.6	93.5	55.8	67.1	73.3
Maltese	59,800	73.4	33.4	89.3	45.0	45.5	42.5
Spanish	56,500	81.0	35.5	84.6	49.6	75.4	75.3
French	54,700	65.9	17.3	80.5	33.7	71.3	64.6
Hungarian	37,000	66.4	27.5	84.3	41.4	59.0	62.3
Russian	27,500	67.4	22.4	85.9	53.5	58.3	59.8
Serbian	26,600	74.7	30.0	88.4	45.9	70.8	73.2
Vietnamese	24,500	96.7	58.0	95.8	73.5	94.2	97.5
Indian(*c*)	22,400	55.9	*	76.8	27.6	40.2	50.7
Turkish	20,300	96.8	59.1	98.9	68.5	80.6	77.5
Latvian	20,000	68.1	*	86.2	52.4	79.0	70.2
Other	225,800	62.4	20.5	77.9	40.6	55.2	55.2
Total	**1,900,400**	73.4	35.0	86.7	50.2	64.0	63.4

* Data suppressed due to high sampling variability.

Note: Persons may be counted in more than one column.

(*a*) Includes 197,000 persons who spoke English and another language as their first languages. (*b*) Proportion of persons in the labour force who use the language first spoken at work. (*c*) Includes all relevant dialects. (*d*) All languages not elsewhere included.

ACQUISITION OF NON-ENGLISH LANGUAGES BY WHETHER ENGLISH FIRST SPOKEN; AUSTRALIA, MAY 1983

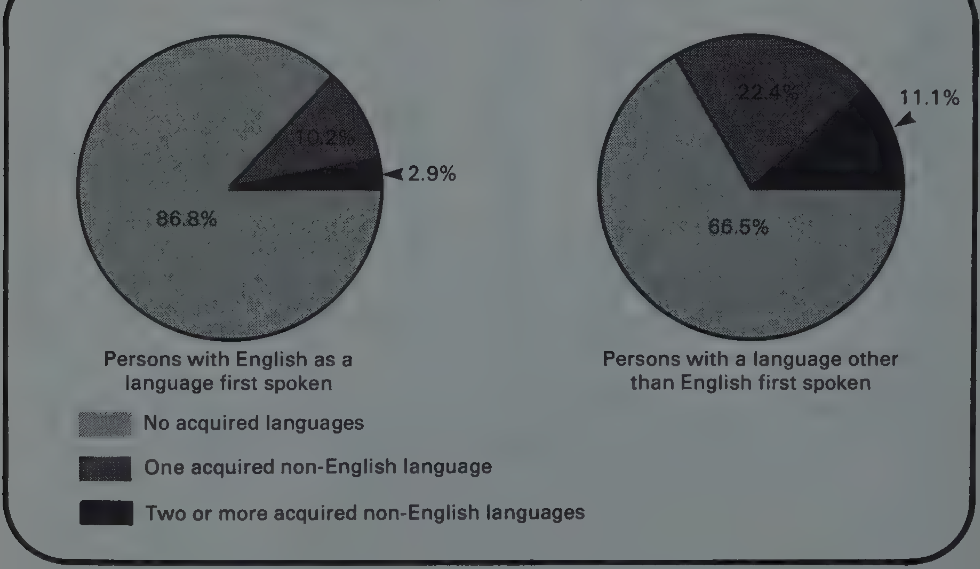


PLATE 16

Refugees

Australia accepted 17,016 people under refugee and special humanitarian programs in 1983. This compared with an intake of 17,522 in 1982.

Since 1945, Australia has accepted more than 420,000 refugees or displaced persons, including 170,000 from Europe who were displaced by the Second World War and its aftermath.

Australia presently accepts refugees from about 40 countries. The largest single element in Australia's current refugee intake is the Indo-Chinese program. In 1983, 13,350 Indo-Chinese refugees were resettled in Australia.

Australia is one of 90 countries which have become party to an international convention and protocol on the status of refugees and, in so doing, have taken on certain international legal obligations to assist refugees. The final determination of a refugee's status and the decision to accept those refugees for resettlement in Australia rests with the Australian Government. Australia is also a member of the Executive Committee of the United Nations High Commission for Refugees (UNHCR). Australia's response to refugee situations is two-fold. Through aid programs directed principally through UNHCR refugees are offered protection and assistance in countries of first asylum. Those refugees for whom other durable solutions are not feasible are offered resettlement (in Australia) if they have relatives in Australia other close ties with Australia or the potential for successful settlement in their own right.

REFUGEE ARRIVALS

Period	*Assisted*	*Other*	*Total*
Annual average—			
1961–65	1,799	n.a.	n.a.
1966–70	7,446	n.a.	n.a.
1971–75	2,773	7,776	10,549
1976–80	9,274	3,284	12,558
Annual totals—			
1978	8,790	1,682	10,472
1979	14,639	2,418	17,057
1980	19,875	1,817	21,692
1981	19,055	2,917	21,972
1982	16,467	1,055	17,522
1983	16,194	822	17,016

Citizenship

The grant of citizenship is controlled by the *Australian Citizenship Act* 1948. Citizenship may be acquired by birth in Australia, by birth abroad to an Australian parent, or by grant of citizenship to persons resident in Australia under conditions prescribed in the Act.

All persons are now eligible for the grant of Australian citizenship provided that they have resided in Australia for at least three years, are of good character, have an adequate knowledge of English and of the responsibilities and privileges of citizenship, and intend to reside permanently in Australia.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP

Period	*Number*
Annual averages—	
1961–65	43,823
1966–70	40,934
1971–75	61,182
1976–80	75,138
Annual totals—	
1978	65,094
1979	53,555
1980	68,145
1981	56,459
1982	75,047
1983	101,900

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CHAPTER 7

PRICES

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses have been collected by the Australian Statistician for the years extending back to 1901 and, in some cases, by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923. (Comparable information was ascertained for the month of November in each year from 1914 to 1922.) The range of items for which retail prices data is obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in the relevant periods were published in the annual *Labour Report* (now discontinued). Descriptions of these earlier indexes were last published in *Labour Report No. 58, 1973.*

The current retail price index, the Consumer Price Index (CPI), was published for the first time in August 1960 and was compiled retrospectively to the September quarter 1948. A description of the Consumer Price Index is given below.

Further information about the CPI is contained in a booklet entitled *A Guide to the Consumer Price Index* (6440.0) which is available from the ABS on request. For a more detailed account, *The Australian Consumer Price Index, Concepts, Sources and Methods* (6461.0) describes what the index measures, the goods and services included in it, and how the index is produced; it also describes the problems encountered in compiling the CPI and how those are dealt with.

The Consumer Price Index

Introduction

The CPI measures quarterly changes in the price of a 'basket' of goods and services which account for a high proportion of expenditures by metropolitan wage and salary earner households. This 'basket' covers a wide range of goods and services, arranged in the following eight groups: food; clothing; housing; household equipment and operation; transportation; tobacco and alcohol; health and personal care; and recreation and education. Each group is in turn divided into sub groups.

As from June quarter 1982 the geographic coverage of the CPI has been expanded to include a full CPI for Darwin.

Index numbers at the *group* and *All Groups* levels are published for each State capital city, Canberra, Darwin, and for the weighted average of eight capital cities. Index numbers for *All Groups* are also published for the weighted average of six State capital cities. *Subgroup index numbers* are published for the weighted average of eight capital cities.

Index population

Because the spending patterns of various groups in the population differ somewhat, the pattern of one large group, fairly homogeneous in its spending habits, is chosen for the purpose of calculating the CPI. The CPI population group is, in concept, *metropolitan employee households.* For this purpose *employee households* are defined as those households which obtain the major part of their household income from wages and salaries; and *metropolitan* means the eight capital cities.

Weighting pattern

There are 105 expenditure classes (i.e. groupings of like items) within the current CPI and each expenditure class has its own weight, or measure of relative importance. In calculating the index, price changes for the various expenditure classes are combined using these weights.

Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI, in fact, comprises ten series of price indexes which have been linked to form a continuous series. The tenth series (i.e. the current series) was introduced as from the March quarter 1982, with a weighting pattern based on estimated household expenditure in 1979–80 and on a reference base 1980–81 = 100.0. Details of the weighting pattern are published in the booklet *A Guide to the Consumer Price Index.*

The CPI 'basket' of goods and services covers items which are considered representative of metropolitan household spending habits and whose prices can be associated with an identifiable and specific quantity of a commodity or service. For instance, price changes for a given quantity and quality of bread or refrigerators can be measured and included in the CPI. Income taxes and personal savings, on the other hand, do not form part of the CPI because they cannot be clearly associated with the purchase of a specific quantity of a good or service.

Price collection

Since the CPI is designed to measure the impact of changing prices on metropolitan wage and salary earner households, price movements are monitored in the kinds of retail outlets or other establishments where such households would normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores, footwear stores, restaurants, garages, dental surgeries and hairdressers. Items such as bus, rail and air fares, electricity and gas charges, telephone charges and local authority rates are collected from the appropriate authorities. Information on rents is obtained from property management companies and government housing authorities. In total, around 85,000 separate price quotations are collected each quarter.

Prices of the goods and services included in the CPI are generally collected quarterly. However, some important items are priced monthly or more frequently (e.g. bread, fresh meat and fish, fresh fruit and vegetables, petrol, alcohol and tobacco) and a small number annually (e.g. seasonal clothing, local government rates and charges).

The bulk of items for which prices are collected quarterly are priced at the middle of the mid-month of the quarter (i.e. in August, November, February and May), but, to facilitate a more even spread of the field collection workload, some goods and services are priced in the first and third months of each quarter. Items priced in the third month are generally those subject to price changes at discrete points of time (e.g. electricity and postal charges, milk); in these cases information is obtained of any changes in price during the quarter so that a weighted average price for the whole quarter can be calculated.

The prices used in the CPI are those that any member of the public would have to pay on the pricing day to purchase the specified good or service. Any sales or excise taxes which the consumer must pay when purchasing specific items are included in the CPI price. Sale prices, discount prices and 'specials' are reflected in the CPI so long as the items concerned are of normal quality (i.e. not damaged or shop soiled) and are offered for sale in reasonable quantities. To ensure that the price movements reflect the experience of the bulk of the metropolitan population, the brands and the varieties of the items which are priced are generally those which sell in greatest volume.

Changes in quality

The CPI aims to measure the price change of a constant basket of goods and services over time. For this reason, efforts are made to ensure that identical or equivalent items are priced in successive time periods. This involves evaluating changes in the quality of goods and services included in the index, and removing the effects of such changes so that the index reflects only the price change.

Periodic revision of the CPI

The CPI is periodically revised in order to ensure it continues to reflect current conditions. CPI revisions have usually been carried out at approximately five-yearly intervals, the most recent having been completed in June 1982. Following each revision the new list of items and weights (i.e. the new CPI basket) is linked to the previous series to form one continuous series. The process of linking ensures that the continuous series reflects only price variations and not differences in costs of the old and new baskets.

Earlier CPI series

The index has been compiled for each quarter from the September quarter 1948. The above description of the CPI refers to the tenth series which was introduced as from the March quarter 1982. A description of earlier CPI series is contained in the *Labour Report No. 58, 1973,* and in previous issues of the Year Book.

CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS

(*Base of each index: Year* 1980–81 = 100.0) (*a*)

Period	*Weighted average of six State capital cities*	*Sydney*	*Mel-bourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*	*Darwin*	*Weighted average of eight capital cities*
Year—										
1978–79	83.0	82.4	83.1	83.4	83.2	84.1	83.1	82.3	..	..
1979–80	91.4	91.1	91.4	91.5	91.6	91.9	91.6	91.1	..	..
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	110.4	110.2	110.4	110.7	110.5	111.2	110.0	110.7	111.1	110.4
1982–83	123.1	123.4	122.8	122.9	123.5	122.5	121.8	124.0	123.1	123.1
1983–84	131.6	130.9	132.1	131.7	132.3	131.0	129.9	132.3	130.2	131.6
Quarter—										
1982–83—										
March	124.6	125.1	124.0	125.0	125.2	123.7	123.5	125.9	124.6	124.7
June	127.3	127.4	127.4	126.6	128.5	125.9	125.9	128.0	126.9	127.3
1983–84—										
September	129.5	129.2	129.5	129.3	130.3	129.4	127.5	129.8	128.6	129.4
December	132.5	131.8	133.3	132.0	132.9	132.3	130.4	133.0	130.3	132.5
March	132.0	131.2	132.6	132.3	132.9	131.1	130.7	133.1	131.0	132.0
June	132.2	131.2	133.0	133.3	133.1	131.1	130.9	133.3	130.9	132.3

(*a*) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

CONSUMER PRICE INDEX: GROUP INDEXES WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES

(*Base of each index: Year* 1980–81 = 100.0 unless otherwise noted)

Period	*Food*	*Clothing*	*Housing*	*Household equipment and operation*	*Transport-ation*	*Tobacco and alcohol*	*Health and personal care*	*Recreation and education(a)*	*All groups*
Year—									
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	..	100.0
1981–82	108.6	107.1	111.1	110.6	110.3	109.2	124.2	..	110.4
1982–83	118.5	114.2	122.8	123.8	124.2	124.1	153.2	107.7	123.1
1983–84	127.7	120.9	131.5	132.6	134.8	139.6	146.5	114.5	131.6
Quarter—									
1982–83—									
March	118.9	113.9	124.1	125.5	126.4	125.8	157.4	109.8	124.7
June	124.2	117.8	126.0	127.1	126.4	128.5	161.1	112.0	127.3
1983–84—									
September	125.6	117.8	127.4	129.1	130.9	131.2	164.5	113.2	129.4
December	127.2	120.4	130.5	132.8	134.5	139.5	167.9	113.5	132.5
March	129.2	120.9	132.6	133.7	135.5	142.0	135.5	115.9	132.0
June	128.8	124.4	135.5	134.8	138.1	145.5	118.2	115.4	132.3

(*a*) New grouping, base March quarter 1982 = 100.0. Group index not compiled for quarters prior to the base period.

CONSUMER PRICE INDEX: GROUP INDEXES
SIX STATE CAPITAL CITIES, CANBERRA AND DARWIN

(*Base of each index: Year* 1980–81 = 100.0 unless otherwise noted) (*a*)

Year	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*	*Darwin*
				FOOD				
1978–79	78.9	79.9	77.6	80.6	82.1	80.3	79.7	. .
1979–80	90.6	90.6	89.8	90.9	91.7	91.6	90.8	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	107.9	108.6	109.2	108.8	110.2	108.7	107.7	110.3
1982–83	117.1	119.3	119.6	118.9	119.9	118.6	117.4	119.5
1983–84	126.2	128.9	128.7	127.2	128.9	128.2	127.1	127.5
				CLOTHING				
1978–79	87.2	87.6	87.8	87.0	87.0	86.7	87.3	. .
1979–80	93.2	93.4	93.8	93.1	92.9	93.1	93.1	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	106.8	106.9	108.2	107.5	107.2	106.4	107.5	108.7
1982–83	114.1	113.4	116.3	115.0	114.0	112.8	114.4	115.6
1983–84	121.2	119.9	122.6	121.3	120.9	119.5	121.3	122.1
				HOUSING				
1978–79	81.7	86.7	85.8	86.0	89.2	88.2	88.4	. .
1979–80	89.7	91.6	91.6	92.1	92.5	93.2	92.8	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	111.1	111.2	113.0	110.1	109.1	107.4	112.4	111.7
1982–83	121.7	123.7	128.0	123.4	118.7	116.3	124.1	125.4
1983–84	127.4	136.0	135.9	136.2	124.1	123.9	136.1	129.2
				HOUSEHOLD EQUIPMENT AND OPERATION				
1978–79	84.3	82.1	85.0	82.7	83.0	82.4	80.8	. .
1979–80	90.4	89.7	90.5	90.4	89.4	89.9	89.2	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	110.7	110.9	110.2	110.9	109.5	110.0	109.4	110.3
1982–83	126.1	123.0	122.1	123.3	120.4	121.7	124.1	122.4
1983–84	134.0	132.2	131.3	132.8	129.1	132.8	132.3	130.8
				TRANSPORTATION				
1978–79	81.3	79.9	81.9	82.0	81.1	79.8	79.2	. .
1979–80	91.5	91.0	91.9	91.9	90.6	90.6	90.7	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	110.3	108.6	112.2	111.2	111.9	112.8	112.4	108.4
1982–83	127.0	120.5	124.7	124.9	123.5	126.8	128.2	119.7
1983–84	136.8	131.1	137.4	136.7	133.9	136.7	137.5	129.0
				TOBACCO AND ALCOHOL				
1978–79	84.8	87.1	88.8	87.4	87.3	86.4	85.2	. .
1979–80	92.4	94.7	94.1	93.6	94.4	93.0	93.0	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	109.9	108.3	109.5	108.5	109.1	109.1	108.6	110.4
1982–83	126.9	121.4	123.4	123.1	122.9	124.0	123.5	127.3
1983–84	140.9	139.4	135.0	139.6	141.0	137.8	136.6	140.8
				HEALTH AND PERSONAL CARE				
1978–79	82.0	85.3	84.8	80.3	84.5	82.9	81.8	. .
1979–80	90.7	90.8	89.8	90.4	96.7	90.8	90.2	. .
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	121.8	128.7	114.1	121.7	130.9	120.5	124.3	136.4
1982–83	149.8	160.1	134.1	156.5	159.8	143.0	153.3	163.9
1983–84	140.7	155.1	133.5	147.3	156.9	131.5	142.7	151.1
				RECREATION AND EDUCATION(*b*)				
1982–83	107.5	108.7	107.3	106.6	105.9	109.4	109.2	106.5
1983–84	114.6	115.6	113.5	113.3	111.8	117.3	116.5	112.1

(*a*) The index numbers are designed to measure movements in retail prices of specified groups of items for each city individually. They measure variations from time to time and not differences in price levels between cities. (*b*) Base: March quarter 1982 = 100.0. The group index is not compiled for quarters prior to the base period.

Previous retail price indexes

Five series of retail price indexes were compiled by the ABS at various times prior to the introduction of the Consumer Price Index in 1960. These indexes are described in Year Book No. 61.

An index of retail price movements from 1901 onwards has been derived by linking together the following indexes: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index. The continuous series derived in this way is shown in the table below. As the indexes differ greatly in scope, the resulting series is only a broad indication of long-term trends in retail prices.

RETAIL PRICE INDEX NUMBERS
WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES
(*Base: Year* 1945=100)

Year	*Index number*	*Year*	*Index number*	*Year*	*Index number*
1901	47	1929	91	1957	229
1902	50	1930	87	1958	233
1903	49	1931	78	1959	237
1904	46	1932	74	1960	245
1905	48	1933	71	1961	252
1906	48	1934	73	1962	251
1907	48	1935	74	1963	252
1908	51	1936	75	1964	258
1909	51	1937	78	1965	268
1910	52	1938	80	1966	276
1911	**53**	1939	82	1967	286
1912	59	1940	85	1968	293
1913	59	1941	89	1969	302
1914(*a*)	61	1942	97	1970	313
1915(*a*)	70	1943	101	1971	332
1916(*a*)	71	1944	100	1972	352
1917(*a*)	75	1945	100	1973	385
1918(*a*)	80	1946	102	1974	443
1919(*a*)	91	1947	106	1975	510
1920(*a*)	103	1948	117	1976	579
1921(*a*)	90	1949	128	1977	650
1922(*a*)	87	1950	140	1978	702
1923	89	1951	167	1979	766
1924	88	1952	196	1980	844
1925	88	1953	205	1981	926
1926	90	1954	206	1982	1,028
1927	89	1955	211	1983	1,132
1928	89	1956	224		

(*a*) November

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES ALL GROUP INDEXES(a)

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)
(*Base of each index: Year* 1970 = 100)

Period	*Australia* (*b*)	*Canada*	*Federal Republic of Germany*	*Indonesia (Djakarta)* (*c*)	*Japan*	*New Zealand*	*United Kingdom*	*United States of America*
1978	224	180	150	n.a.	211	244	270	168
1979	244	197	156	n.a.	219	277	306	187
1980	269	217	164	100	236	325	361	212
1981	295	244	174	112	248	375	404	234
1982	328	270	183	123	255	435	438	249
1983	361	286	189	137	259	467	458	257
Quarter—								
1982—								
Sept.	333	274	185	n.a.	255	445	442	251
Dec.	343	278	186	126	258	457	445	252
Quarter—								
1983—								
March	350	280	187	132	257	461	447	252
June	358	284	188	137	260	465	457	255
Sept.	364	288	190	140	259	469	462	258
Dec.	373	291	191	141	262	473	468	261

(*a*) The items priced and the levels at which they are priced in these indexes vary widely according to the intended purposes of the indexes of the various countries. The index numbers show fluctuations in prices in each country and do not measure relative price levels between countries. (*b*) Consumer Price Index converted to base: 1970 = 100. (*c*) Base 1980 = 100.

Wholesale price indexes

Introduction

The ABS compiles a range of Industry Price and External Trade Price Indexes relating to materials used and articles produced by defined sectors of the Australian economy. Each index is calculated using fixed weights. In compiling the indexes, prices are collected from representative suppliers, manufacturers, importers or exporters of the goods included in the indexes. For all industry price indexes (except the *Price Index of Materials Used in Manufacturing Industry*) prices are generally collected at the mid-point of each month. In the case of the *Price Index of Materials Used in Manufacturing Industry* and the *Export Price Index*, average monthly prices are mainly used in compiling the indexes. Weighted average quarterly prices are used to compile the *Import Price Index*.

All indexes (except the *Import Price Index*) are compiled and published monthly. The *Import Price Index* is compiled and published quarterly. Published index numbers for financial years are the simple averages of the relevant monthly or quarterly index numbers. Annual index numbers for these indexes are shown below. Index numbers for each month (or quarter for the *Import Price Index*) together with more detailed information concerning methods used in compiling these indexes, are shown in the bulletins published for each index. Information on the weighting patterns for each index is available from the ABS on request.

Price index of materials used in house building

This index measures changes in prices of selected materials used in the construction of houses. Its composition reflects the usage of materials in houses which were selected as representative for the purpose. Weights are based on the year 1968–69. The reference base of the index is the year 1966–67 = 100.0. Further information concerning the method of compiling the index, as well as more detailed index numbers, is shown in the publications *Price Index of Materials Used in House Building* (6408.0), *Labour Report* No. 58, 1973 and Year Book No. 60.

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67=100.0)

	Concrete mix, cement and sand	*Cement products*	*Clay bricks, tiles, etc.*	*Timber, board and joinery*	*Steel products*	*Other metal products*
Value Weight	*5.73%*	*8.10%*	*12.85%*	*36.16%*	*5.86%*	*7.20%*
1978–79	255.5	303.8	262.2	290.8	307.6	239.7
1979–80	292.8	336.3	294.8	331.5	341.0	281.7
1980–81	334.1	383.1	334.9	377.8	389.4	314.7
1981–82	373.8	438.5	*r* 374.2	406.8	*r* 434.9	343.1
1982–83	430.9	498.1	*r* 417.2	*r* 434.5	*r* 485.6	374.8
1983–84*p*	451.5	534.5	448.6	474.0	519.8	409.0

	Plumbing fixtures, etc.	*Electrical instal-lation materials*	*Installed appli-ances*	*Plaster and plaster products*	*Miscel-laneous materials*	*All groups*
Value weight	*3.74%*	*1.63%*	*5.13%*	*5.64%*	*7.96%*	*100.00%*
1978–79	244.1	240.0	202.9	204.3	248.2	268.1
1979–80	278.1	282.1	217.6	222.8	278.2	302.9
1980–81	319.3	316.0	240.6	244.6	319.6	344.0
1981–82	351.5	345.9	263.9	273.1	348.7	*r* 377.8
1982–83	373.8	*r* 395.8	282.7	317.8	*r* 381.1	*r* 414.4
1983–84*p*	407.4	443.6	291.3	332.7	410.0	446.9

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING ALL GROUPS INDEX NUMBERS—SIX STATE CAPITAL CITIES

(*Base of each index: Year* 1966–67=100.0)

	State capital cities(a)						*Weighted average of six State capital cities*
	Sydney	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	
1978–79	272.7	251.4	281.3	292.1	268.2	273.6	268.1
1979–80	309.5	283.4	315.0	338.5	299.4	304.2	302.9
1980–81	347.6	324.7	363.7	386.1	337.6	338.2	344.0
1981–82	*r* 378.3	*r* 355.0	407.2	427.2	373.2	371.7	*r* 377.8
1982–83	*r* 409.0	*r* 392.1	*r* 447.8	480.3	*r* 409.2	*r* 405.8	*r* 414.4
1983–84*p*	434.4	430.3	484.7	519.4	438.0	440.2	446.9

(*a*) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Price index of materials used in building other than house building

The *Price Index of Materials Used in Building Other than House Building* (6407.0), on a reference base 1966–67 = 100.0, was discontinued in January 1981. Monthly index numbers on a 1966–67 = 100.0 reference base are available for the period July 1966 to January 1981. A description of the discontinued index is shown in previous year books and in the monthly publications issued up to and including January 1981.

The revised price index of materials used in building other than house building—six State capital cities

The revised *Price Index of Materials Used in Building Other than House Building* for the six State capital cities was introduced in February 1981 on reference base 1979–80 = 100.0.

This index measures changes in prices of selected materials used in the construction of buildings other than houses. Its composition reflects the usage of materials in the construction of buildings (other than houses) commenced in the three years ending June 1977.

Further information concerning the method of compiling the index can be obtained from the February 1981 issue of the publication *Price Index of Materials Used in Building Other than House Building—Six State Capital Cities* (6407.0).

Price index of materials used in building other than house building—Darwin

The *Price Index of Materials Used in Building Other than House Building* for Darwin was introduced in September 1982 on a reference base 1981–82=100.0. The scope of the index is the same as for the other capital cities. Further information concerning the method of compiling the index can be obtained from the September 1982 issue of the *Price Index of Materials Used in Building Other than House Building—Six State Capital Cities and Darwin* (6407.0).

The tables below show annual index numbers for selected ASIC Groups and 'All groups' for the weighted average of six State capital cities. In addition, 'All groups' index numbers for each State capital city and Darwin are shown. Index numbers for selected materials and special combinations of materials and monthly index numbers are shown in each issue of the monthly price index publication *Price Index of Materials Used in Building Other than House Building—Six State Capital Cities and Darwin* (6407.0).

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING GROUP INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC) WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(Base of each index: Year 1979-80=100.0)

	Selected ASIC Groups					
	Wood and wood products (253)	*Clay products and refractories (286)*	*Cement and concrete products (287)*	*Basic iron and steel (294)*	*Structural metal products (314)*	*Sheet metal products (315)*
Value weight	*7.97%*	*4.16%*	*15.42%*	*4.69%*	*29.24%*	*3.68%*
1979-80	100.0	100.0	100.0	100.0	100.0	100.0
1980-81	114.3	114.3	113.0	113.2	113.9	114.5
1981-82	126.5	*r* 126.2	125.2	126.6	126.4	130.3
1982-83	*r* 140.0	*r* 139.2	143.4	138.9	138.3	*r* 146.2
1983-84p	149.9	149.4	150.1	146.2	145.0	161.8

	Selected ASIC Groups				
	Other fabricated metal products (316)	*Appliances and electrical equipment (335)*	*Industrial machinery and equipment (336)*	*Other*	*All groups*
Value weight	*2.77%*	*9.70%*	*8.79%*	*13.58%*	*100.00%*
1979-80	100.0	100.0	100.0	100.0	100.0
1980-81	112.9	109.8	111.2	112.6	112.9
1981-82	126.2	122.2	124.2	123.6	125.4
1982-83	*r* 141.9	*r* 138.5	*r* 139.9	*r* 139.0	*r* 139.9
1983-84p	154.8	148.7	147.1	148.5	148.3

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING ALL GROUPS SIX STATE CAPITAL CITIES AND DARWIN(a)

	Weighted average of six State capital cities	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin*
	INDEX NUMBERS							
Base Year	1979-80=100.0							1981-82=100.0
1978-79(*b*)	88.5	88.3	88.5	88.9	87.3	89.4	89.6	n.a.
1979-80	100.0	100.0	100.0	100.0	100.0	100.0	100.0	n.a.
1980-81	112.9	113.1	112.7	113.2	113.8	112.2	111.6	n.a.
1981-82	125.4	126.6	*r* 123.5	126.3	127.4	123.8	122.9	100.0
1982-83	*r* 139.9	*r* 141.6	*r* 136.1	*r* 141.9	*r* 144.3	*r* 138.8	*r* 136.1	*r* 111.2
1983-84p	148.3	149.1	144.1	152.9	153.6	146.7	146.2	118.6

(*a*) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.
(*b*) The index series for 1978-79 is based on the series previously published on a reference base 1966–67=100.0. It has been converted to the reference base 1979–80=100.0 by linking the old and new series in the year 1979–80.

Price index of materials used in manufacturing industry

This index measures changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC), as described in the ABS publication *Australian Standard Industrial Classification (Preliminary Edition)* 1969 (1201.0). The index is on a *net basis,* i.e. it relates in concept only to those materials which are used by establishments within the Manufacturing Division in Australia and which have been produced by establishments outside that Division. Materials purchased by establishments classified to the Australian Manufacturing Division from other establishments in that Division are outside the scope of the index.

The reference base of the index is the year 1968–69=100.0. The weighting base of the index corresponds to the year 1971–72. The items included in the index were allocated weights in accordance with estimated manufacturing usage in 1971–72. The selected items are combined for publication purposes into broad groups using two different classifications:

(i) Australian Standard Industrial Classification (ASIC), and
(ii) Standard International Trade Classification (SITC (R)).

Further information concerning the method of compiling the index, as well as more detailed index numbers, is shown in the publications *Price Index of Materials Used in Manufacturing Industry, Australia* (6411.0) and Year Book No. 61.

PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY(*a*): GROUP INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION

(*Base of each index: Year* 1968–69=100.0)

	Imported materials				*Home produced materials*					
	Agri-culture	*Mining*	*Manu-facturing*	*Total imported materials*	*Agri-culture*	*Forestry and fishing*	*Mining*	*Elec-tricity*	*Total home produced materials*	*All groups*
Value weight	*1.92%*	*4.17%*	*21.07%*	*27.16%*	*47.04%*	*1.12%*	*18.92%*	*5.76%*	*72.84%*	*100.00%*
1978-79	285.3	542.6	222.1	275.7	228.8	263.5	281.8	173.8	238.7	248.8
1979-80	329.2	911.8	261.8	366.4	280.3	300.3	403.5	186.7	305.2	321.8
1980 81	293.6	1,146.3	278.7	413.0	295.9	344.4	454.1	210.2	330.9	353.2
1981-82	264.5	1,247.8	290.6	435.7	r 282.0	363.0	r 472.1	253.3	r 330.3	358.9
1982-83	303.6	1,318.7	r 310.6	r 464.9	r 288.8	378.8	r 541.1	333.9	359.3	r 388.0
1983-84p	344.0	1,288.2	323.6	473.1	312.1	410.1	538.5	351.3	375.5	402.0

For footnote, see table following

PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY(*a*): GROUP INDEX NUMBERS BASED ON STANDARD INTERNATIONAL TRADE CLASSIFICATION (REVISED)

(*Base of each index: Year* 1968 – 69=100.0)

	Manufactured materials (imported) (b)			*Other materials (imported and home produced) (c)*			
	Chemicals	*Metal manufactures, components for transport equipment and machinery*	*Other manufactured materials*	*Food, live animals and tobacco*	*Crude materials (excl. fuels)*	*Electricity, gas and fuels*	*All groups*
Value weight	*6.67%*	*5.21%*	*5.76%*	*45.87 %*	*20.66%*	*15.83%*	*100.00%*
1978-79	180.9	271.6	201.3	232.5	227.4	362.4	248.8
1979-80	225.1	294.2	230.3	285.1	288.8	554.6	321.8
1980-81	244.7	310.3	242.9	299.5	286.9	695.5	353.2
1981-82	252.8	320.7	257.3	r 283.9	r 281.4	771.8	358.9
1982-83	271.0	r 343.9	r 280.8	r 291.2	r 303.9	880.7	r 388.0
1983-84p	282.8	358.0	288.0	314.9	319.2	868.7	402.0

(*a*) The index is on a net basis and relates in concept only to materials that enter Australian manufacturing industry from other sectors of the Australian economy or from overseas. (*b*) Excluding the manufactured imported crude materials listed in footnote (c). (*c*) Includes imported fuel oil and the following manufactured imported crude materials: Synthetic rubber, hardwood, softwood, woodpulp, synthetic fibre, vegetable oils.

Price indexes of articles produced by manufacturing industry

These indexes measure changes in the price of articles produced by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). Indexes are on a *net basis,* i.e. they relate in concept only to those articles which are produced in defined sectors of Australian manufacturing industry for sale or transfer to other sectors or for export or for use as capital equipment. Articles which are sold or transferred to other establishments within the sector for further processing as materials, components, fuels, etc. are excluded.

The following sector price indexes are published:

(i) a net index for the Manufacturing Division of ASIC (known as the *All Manufacturing Industry Index*), and

(ii) net indexes for the twelve sub-divisions within the Manufacturing Division.

The reference base of the index is the year 1968–69=100.0. The weighting base of the index corresponds to the year 1971–72. The items included in these indexes were allocated weights in accordance with estimated *net* sector production in the year 1971–72.

The selected items are combined for publication purposes using the structure of the Australian Standard Industrial Classification (ASIC).

Further information concerning the method of compiling the index and monthly index numbers for sub-divisions and special groupings are shown in the publication *Price Indexes of Articles Produced by Manufacturing Industry, Australia* (6412.0). Further information about the indexes is also shown in Year Book No. 62.

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY (*a*)
(*Base of each index: Year* 1968–69=100.0)

		Net subdivision indexes (c)					
Year	*All Manufacturing Industry Index (b)*	*Food, beverages and tobacco (21–22)*	*Textiles (23)*	*Clothing and footwear (24)*	*Wood, wood products and furniture (25)*	*Paper, paper products and printing (26)*	*Chemical, petroleum and coal products (27)*
1978–79	237.4	226.4	205.1	238.4	280.4	245.0	233.1
1979-80	274.9	266.5	228.8	255.3	315.5	269.6	307.4
1980–81	*r* 305.3	290.9	252.7	276.5	357.3	304.2	*r* 366.8
1981-82	*r* 328.9	301.9	270.6	298.1	388.4	346.0	*r* 400.9
1982-83	*r* 360.2	328.2	286.7	316.0	*r* 424.9	390.4	*r* 442.4
1983 84p	382.8	355.5	305.8	333.2	455.4	413.6	456.8

Year	*Glass, clay and other non-metallic mineral products (28)*	*Basic metal products (29)*	*Fabricated metal products (31)*	*Transport equipment (32)*	*Other industrial machinery and equipment and household appliances (33)*	*Miscellaneous manufacturing products (34)*
1978-79	236.8	237.2	287.7	230.2	232.2	209.8
1979-80	265.2	282.7	323.9	252.2	261.3	252.5
1980–81	300.2	297.8	371.6	275.7	289.7	273.9
1981-82	*r* 337.2	315.3	414.2	303.2	320.7	289.5
1982-83	*r* 382.1	345.5	452.5	335.5	*r* 353.1	*r* 313.3
1983–84p	404.0	365.5	480.1	358.9	372.6	341.9

(*a*) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division, *see Australian Standard Industrial Classification* (ASIC), *Preliminary Edition*, 1969. (*b*) This index is on a net division basis and relates in concept only to articles which are produced in the Manufacturing Division of ASIC for sale or transfer outside the Division. (*c*) These indexes are on a net subdivision basis; the index for each subdivision relates in concept to articles which are produced in that subdivision for sale or transfer outside the subdivision.

Import Price Index

The first issue of the Import Price Index produced by the ABS was released in May 1983 and covers the period September quarter 1981 to December quarter 1982, on a reference base 1981–82 = 100.0. This index, published quarterly, replaces the import price index previously published by the Reserve Bank of Australia on a reference base 1966–67 = 100.

The Import Price Index measures changes in prices of *imports of merchandise* into Australia. The index numbers for each quarter relate to prices of imports landed in Australia during the quarter.

The commodities directly represented in the index were selected on the basis of their import values in the years 1978–79, 1979–80 and 1980–81. They were allocated weights in accordance with the average value of imports for each commodity over the three years ended June 1981.

The selected commodities are combined for publication purposes into broad index groups using three different classifications:

(i) Australian Import Commodity Classification (AICC) 1980–81 (1204.0)
(ii) Australian Standard Industrial Classification (ASIC) 1978 (1201.0)
(iii) United Nations Classification by Broad Economic Categories (BEC) 1976

In addition, BEC categories have been rearranged to form the broader end use classes: Capital goods, Intermediate goods and Consumption goods.

Further information concerning the method of compiling the index can be obtained from the December Quarter 1982 issue of the publication *Import Price Index* (6414.0) and *Year Book No. 68*. More detailed index numbers are shown in the quarterly publication *Import Price Index, Australia* (6414.0).

IMPORT PRICE INDEX

INDEX NUMBERS BASED ON THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION (AICC)

(Base of each index: Year 1981–82 = 100.0)

		AICC Sections								
Year	*All groups*	*Food and live animals chiefly for food (0)*	*Beverages and tobacco (1)*	*Crude materials, inedible, except fuels (2)*	*Mineral fuels, lubricants and related materials (3)*	*Animal and vegetable oils, fats and waxes (4)*	*Chemicals and related products, n.e.s. (5)*	*Manufactured goods classified chiefly by material (6)*	*Machinery and transport equipment (7)*	*Miscellaneous manufactured articles and non-monetary gold (8 & 9 part)*
1981–82 . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1982–83 . . .	110.4	*r* 111.6	*r* 120.9	*r* 104.9	109.2	98.0	*r* 106.7	109.4	112.1	*r* 112.1
1983 84p . . .	114.3	123.0	128.9	107.8	104.2	135.9	106.7	114.4	118.5	119.0

IMPORT PRICE INDEX

INDUSTRY OF ORIGIN INDEX NUMBERS BASED ON THE AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)

(Base of each index : Year 1981–82 = 100.0)

	ASIC Divisions		
Year	*Agriculture forestry, fishing and hunting (A)*	*Mining (B)*	*Manufacturing (C)*
1981–82	100.0	100.0	100.0
1982–83	115.0	110.6	110.3
1983–84p . . .	131.0	103.9	115.2

IMPORT PRICE INDEX

INDEX NUMBERS FOR BROAD ECONOMIC CATEGORIES (BEC) AND END USE CLASSES

(Base of each index: Year 1981–82 = 100.0)

	Broad economic categories						*End use classes*[1]		
Year	*Food and beverages*	*Industrial supplies not elsewhere specified*	*Fuels and lubricants*	*Capital goods (except transport equipment) and parts and accessories thereof*	*Transport equipment and parts and accessories thereof*	*Consumer goods not elsewhere specified*	*Capital goods*	*Intermediate goods*	*Consumption goods*
1981–82	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1982–83	*r* 110.1	107.9	109.2	112.1	*r* 112.9	*r* 111.0	111.1	109.3	*r* 112.0
1983–84p	122.9	110.8	104.2	116.8	123.8	116.9	116.5	111.4	119.0

1. Broad Economic Categories rearranged into end use classes.

Export price index

An annual index of export prices has been published by the bureau since its inception. Brief descriptions of indexes covering the period between 1901 and 1979 are shown in Year Book No. 55, pages 256–7 and Year Book No. 58, pages 240–2.

The revised Export Price Index was introduced in July 1979. It relates to *all exports of merchandise* from Australia. The index numbers for each month relate to prices of those exports of merchandise that are physically shipped from Australia during that month.

The reference base of the index is the year 1974–75 = 100. The commodities directly represented in the index were selected on the basis of their export values in the years 1974–75, 1975–76 and 1976–77. They were allocated weights in accordance with the average value of exports for each commodity over the three years ended June 1977.

The selected commodities are combined for publication purposes into broad index groups using two different classifications:

(i) Australian Export Commodity Classification (AECC) 1978–79 (1203.0);
(ii) Australian Standard Industrial Classification (ASIC) 1978 (1201.0).

Further information concerning the method of compiling the index can be obtained from the July 1979 issue of the publication *Export Price Index* (6405.0) and Year Book No. 64. More detailed index numbers are shown in the monthly publication *Export Price Index, Australia* (6405.0).

EXPORT PRICE INDEX:
INDEX NUMBERS BASED ON AUSTRALIAN EXPORT COMMODITY CLASSIFICATION (AECC)
(*Base of each index: Year* 1974–75=100)

		AECC Sections				
Year	*All groups*	*Food and live animals (0)*	*Crude materials inedible (except fuels) (2)*	*Mineral fuels and lubricants (3)*	*Animal and vegetable oils and fats (4)*	*Chemicals and other manufactured exports (5, 6, 7 and 8)*
1978–79	144	119	162	170	157	146
1979–80	174	145	191	198	169	188
1980–81	185	162	202	217	145	181
1981–82	187	147	219	247	139	178
1982–83	203	152	242	287	138	191
1983–84p	208	163	242	269	168	212

EXPORT PRICE INDEX:
INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)
(*Base of each index: Year* 1974–75=100)

	ASIC Divisions		
Year	*Agriculture, forestry, fishing and hunting (A)*	*Mining (B)*	*Manufacturing (C)*
1978–79	114	163	150
1979–80	137	180	190
1980–81	150	191	199
1981–82	153	221	191
1982–83	158	262	202
1983–84p	169	244	212

Previous wholesale price indexes

The *Melbourne Wholesale Price Index*, first compiled in 1912, was discontinued in 1961. The *Wholesale Price (Basic Materials and Foodstuffs) Index*, which replaced the Melbourne Wholesale Price Index from 1936–37, was discontinued in 1970. Further information concerning these indexes is shown in Year Book No. 61.

PRICES SURVEILLANCE AUTHORITY

General

On 19 March 1984, concurrent with the proclamation of the *Prices Surveillance Act 1983*, the Petroleum Products Pricing Authority was abolished and its activities subsumed by the Prices Surveillance Authority.

The functions of the Authority are to consider price notices submitted to it in accordance with Section 22 of the Act and to hold inquiries into matters relating to prices for the supply of goods and services. The Authority is required to report to the Minister the results of each such inquiry.

Legislative Provisions

The Act provides for the declaration of persons in relation to the supply of specified goods and services. Notifications to the Authority are required where declared persons propose to charge higher than currently existing prices for those specified goods and services. Action by the Authority in relation to price notifications includes the issuing of a notice stating that it has no objection to the proposed prices, a notice that it has no objection to a price lower than the proposed price, and recommending to the Minister that a public inquiry be held.

The Authority is required to hold such inquiries as directed by the Minister and, with the approval of the Minister, such other inquiries as it thinks fit.

Although the Act provides that prices shall not be increased during an inquiry provision exists for the granting of interim price increases pending the outcome of an inquiry.

HOUSEHOLD EXPENDITURE SURVEYS

During the financial years 1974–75 and 1975–76, the ABS conducted two surveys in order to obtain information about the expenditure patterns of private households. The 1974–75 survey was confined to a sample of households in the six State capital cities and Canberra (collection in Darwin being suspended in December 1974 due to cyclone Tracy), while the coverage of the 1975–76 survey was extended to include other urban and rural regions. Apart from limited attempts in 1910–11 and 1913 to assess the spending patterns of Australian households, these surveys were the first official collections of household expenditure statistics conducted in this country.

Surveys of household expenditure and related topics have formed an integral part of the statistical programmes of a number of other countries for many years. Perhaps the most important reason for the collection of data relating to expenditure at the household level is to provide information for use in improving the representativeness of the items and the weighting pattern used to compile the Consumer Price Index (*see* page 151). Household expenditure statistics also provide a rich source of data needed for a wide range of policy and research purposes. These include the planning of welfare services; assessing the need for, and effect of, programmes in fields such as housing, education and health; assessing the impact of taxation and government benefits; and improving estimates of private final consumption expenditure in the National Accounts.

Details about the 1974 – 75 and 1975 – 76 surveys are contained in Year Book No. 63, pages 119 – 123.

A further household expenditure survey was conducted during the calendar year 1984.

BIBLIOGRAPHY

ABS Publications

Monthly summary of statistics (1304.0)
Digest of current economic statistics (monthly) (1305.0)
Consumer price index (quarterly) (6401.0)
Average retail prices of selected items (quarterly) (6403.0)
Export price index (monthly) (6405.0)
Price index of materials used in building other than house building (monthly) (6407.0)
Price index of materials used in house building (monthly) (6408.0)
Price indexes of metallic materials (monthly) (6410.0)
Price index of materials used in manufacturing industry (monthly) (6411.0)
Price indexes of articles produced by manufacturing industry (monthly) (6412.0)
Import price index (quarterly) (6414.0)

CHAPTER 8

MANPOWER

The principal subjects covered in this chapter are labour force, unemployment, wage rates, earnings, hours of work, industrial disputes, trade unions and Commonwealth Government employment and training programs. Further detail on these subjects is contained in *Labour Statistics, Australia* (6101.0), *A Guide to Labour Statistics* (6102.0) and in other publications listed at the end of this chapter.

THE LABOUR FORCE

Fundamental to the measurement of employment and unemployment is the concept of the labour force. The labour force is defined broadly as those persons aged 15 and over who during a particular week are either employed or unemployed. The labour force represents the total official supply of labour available to the labour market during a given week.

This section presents some summary statistics on the civilian labour force drawn from the ABS monthly labour force survey and associated supplementary surveys. Set out below is a range of characteristics such as whether persons are employed, unemployed or not in the labour force, together with demographic information (i.e. age, sex, marital status, birthplace, etc.). For a description of the labour force survey and its relationship to the population census *see* Year Book No. 68, pages 133-135. Further details concerning the scope, coverage and survey methods (as well as more detailed statistics) of the labour force and supplementary surveys can be found in the publications listed at the end of this chapter.

Australian labour force framework

The need to reflect the dynamic structure and characteristics of the labour market and the changes required to respond to evolving socio-economic conditions and policy concerns has resulted in significant modifications to the original labour force survey framework that was developed in the 1960s. An ever increasing demand to obtain information concerning underemployment and information on persons wanting work but not defined as unemployed has led to improvements to the conceptual basis of the Australian labour force framework. The modified framework is set out schematically on page 117.

Characteristics of the labour force

The size and composition of the labour force is not static over time. Growth of the labour force is due to an increase/decrease in labour force participation or in the population aged 15 and over. The table below sets out the growth of the labour force by source for the period August 1979-1984.

LABOUR FORCE: SOURCES OF GROWTH, AUGUST 1979 TO AUGUST 1984

(Per cent)

	Males			*Females*			*Persons*		
		Proportion of change due to			*Proportion of change due to*			*Proportion of change due to*	
Year ending August	*Percentage change in labour force*	*Population growth*	*Labour force participation*	*Percentage change in labour force*	*Population growth*	*Labour force participation*	*Percentage change in labour force*	*Population growth*	*Labour force participation*
1979	1.1	1.6	−0.5	0.3	1.8	−1.5	0.8	1.7	−0.9
1980	1.8	1.7	0.1	6.2	1.8	4.4	3.4	1.8	1.6
1981	1.6	2.0	−0.4	1.3	2.1	−0.8	1.5	2.1	−0.6
1982	0.9	2.1	−1.2	1.1	2.1	−1.0	1.0	2.1	−1.1
1983	0.9	1.8	−0.9	2.0	1.8	0.2	1.3	1.8	−0.5
1984	1.4	1.6	−0.2	3.0	1.6	1.4	2.0	1.6	0.4

THE AUSTRALIAN LABOUR FORCE FRAMEWORK

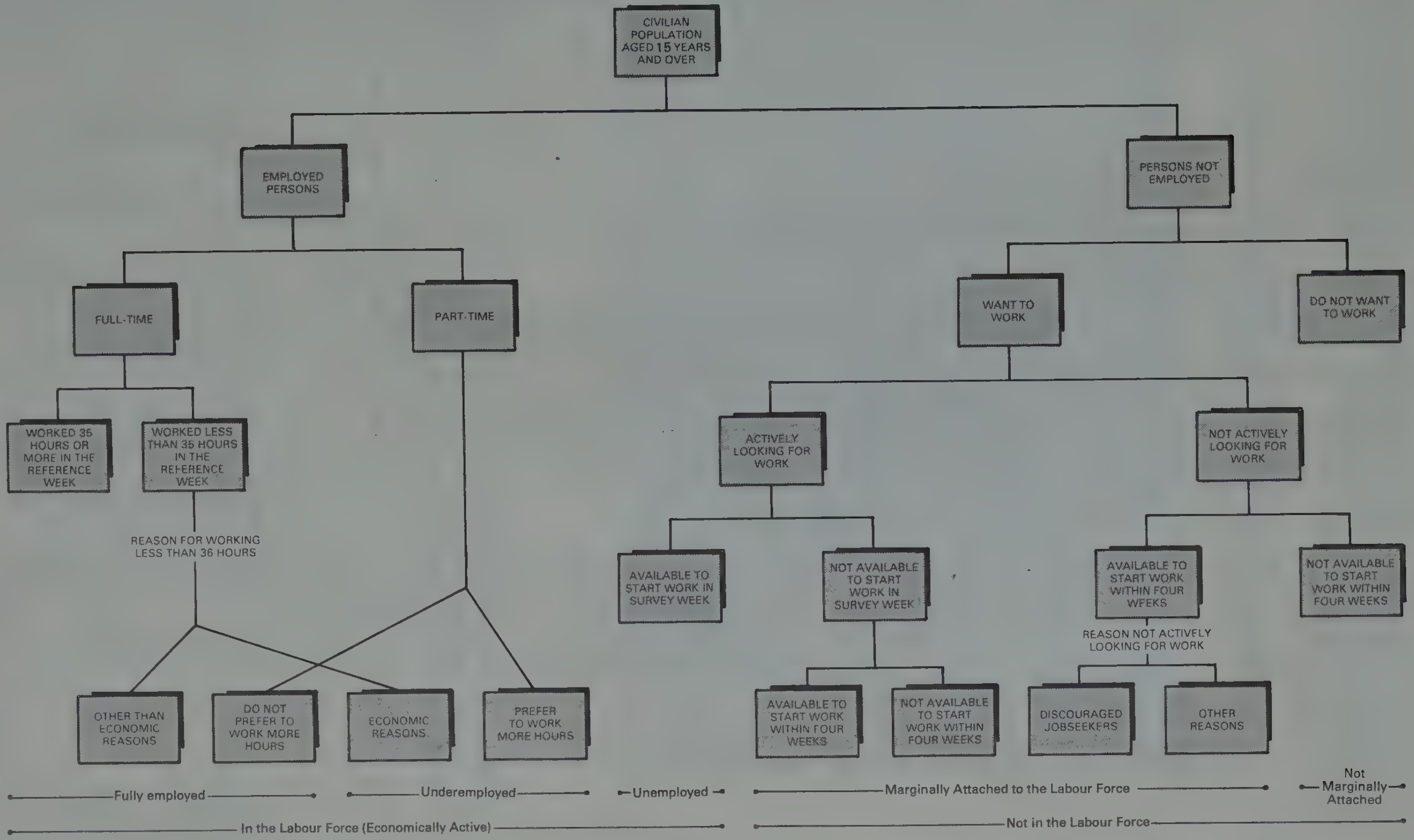

CIVILIAN POPULATION AGED 15 YEARS AND OVER
EMPLOYED PERSONS
PERSONS NOT EMPLOYED
FULL-TIME
PART-TIME
WANT TO WORK
DO NOT WANT TO WORK
WORKED 35 HOURS OR MORE IN THE REFERENCE WEEK
WORKED LESS THAN 35 HOURS IN THE REFERENCE WEEK
REASON FOR WORKING LESS THAN 36 HOURS
ACTIVELY LOOKING FOR WORK
NOT ACTIVELY LOOKING FOR WORK
AVAILABLE TO START WORK IN SURVEY WEEK
NOT AVAILABLE TO START WORK IN SURVEY WEEK
AVAILABLE TO START WORK WITHIN FOUR WEEKS
NOT AVAILABLE TO START WORK WITHIN FOUR WEEKS
REASON NOT ACTIVELY LOOKING FOR WORK
OTHER THAN ECONOMIC REASONS
DO NOT PREFER TO WORK MORE HOURS
ECONOMIC REASONS
PREFER TO WORK MORE HOURS
AVAILABLE TO START WORK WITHIN FOUR WEEKS
NOT AVAILABLE TO START WORK WITHIN FOUR WEEKS
DISCOURAGED JOBSEEKERS
OTHER REASONS
Fully employed
Underemployed
Unemployed
Marginally Attached to the Labour Force
Not Marginally Attached
In the Labour Force (Economically Active)
Not in the Labour Force

PLATE 17

One of the most important labour force measurements is the participation rate, which represents the proportion of the working age population who are in the labour force. Analysis of the participation rates provides the basis for monitoring changes in the size and composition of labour supply, particularly in terms of their age, sex and marital status.

LABOUR FORCE PARTICIPATION RATES
(THE LABOUR FORCE IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN POPULATION AGED 15 AND OVER IN THE SAME GROUP)

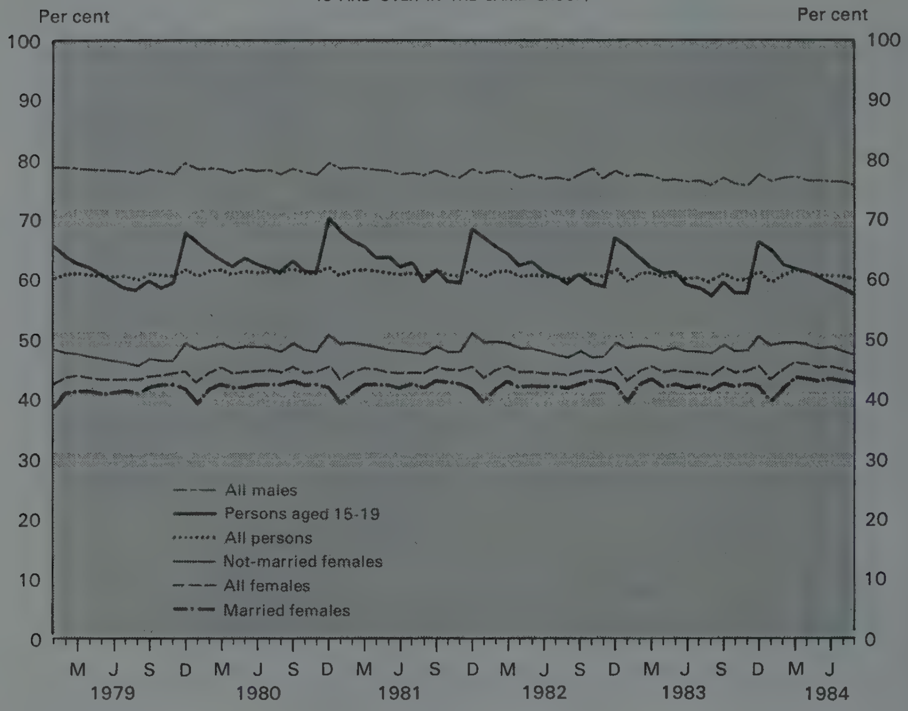


PLATE 18

The following two tables provide more detailed information on the labour force status of persons. The first table presents the age and sex composition of the total labour force as at June 1984. The second table shows changes in labour force status over time.

CIVILIAN LABOUR FORCE, BY AGE, JUNE 1984

	Number (' 000)					*Participation rate (per cent)*				
		Females					*Females*			
Age group	*Males*	*Married*	*Not married*	*Total*	*Persons*	*Males*	*Married*	*Not married*	*Total*	*Persons*
15-64	4,356.7	1,545.1	1,147.8	2,692.9	7,049.6	84.8	48.0	62.3	53.2	69.1
15-19	396.5	11.6	356.5	368.0	764.5	60.6	46.9	58.7	58.2	59.5
20-24	590.1	164.5	315.0	479.5	1,069.6	88.7	59.5	81.2	72.2	80.4
25-34	1,202.7	465.4	231.6	697.0	1,899.7	95.3	49.3	73.8	55.4	75.4
35-44	1,012.9	502.6	113.6	616.2	1,629.0	95.2	58.6	64.0	59.6	77.6
45-54	704.9	299.7	80.8	380.5	1,085.4	90.6	49.6	56.4	50.9	71.2
55-59	302.4	76.1	33.9	110.0	412.4	79.7	27.5	35.0	29.4	54.7
60-64	147.3	25.3	16.4	41.7	189.0	44.5	10.7	14.2	11.8	27.6
65 and over	60.5	9.7	13.0	22.7	83.2	9.2	2.7	2.3	2.5	5.3
Total	**4,417.2**	**1,554.8**	**1,160.9**	**2,715.7**	**7,132.8**	**76.3**	**43.5**	**48.4**	**45.5**	**60.6**

CIVILIAN POPULATION AGED 15 AND OVER: LABOUR FORCE STATUS, 1979–84

		Unemployed							
June	Employed	Looking for full-time work	Looking for part-time work	Total	Labour force	Not in the labour force	Civilian population aged 15 years and over	Unemployment rate	Participation rate
	—'000—							—per cent—	
				MALES					
1979 . . .	3,928.0	194.1	13.2	207.3	4,135.3	1,148.9	5,284.2	5.0	78.3
1980 . . .	3,984.3	194.5	15.9	210.3	4,194.6	1,176.3	5,370.9	5.0	78.1
1981 . . .	4,074.4	170.1	12.4	182.5	4,256.9	1,219.2	5,476.0	4.3	77.7
1982 . . .	4,064.9	216.8	23.9	240.6	4,305.6	1,287.7	5,593.2	5.6	77.0
1983 . . .	3,924.5	407.9	16.5	424.5	4,349.0	1,346.6	5,695.6	9.8	76.4
1984 . . .	4,042.1	349.7	25.3	375.0	4,417.2	1,374.1	5,791.3	8.5	76.3
				MARRIED FEMALES					
1979 . . .	1,313.9	32.9	33.2	66.0	1,379.9	1,967.7	3,347.7	4.8	41.2
1980 . . .	1,356.2	37.2	33.9	71.1	1,427.3	1,945.7	3,373.0	5.0	42.3
1981 . . .	1,372.6	33.0	32.3	65.2	1,437.8	1,987.1	3,424.9	4.5	42.0
1982 . . .	1,376.5	44.9	32.0	77.0	1,453.4	2,006.9	3,460.4	5.3	42.0
1983 . . .	1,392.0	67.4	38.1	105.5	1,497.5	2,069.2	3,566.8	7.0	42.0
1984 . . .	1,454.5	59.9	40.4	100.3	1,554.8	2,022.1	3,577.0	6.4	43.5
				ALL FEMALES					
1979 . . .	2,167.7	132.7	53.1	185.7	2,353.4	3,086.7	5,440.1	7.9	43.3
1980 . . .	2,285.6	146.1	52.9	199.0	2,484.6	3,054.2	5,538.8	8.0	44.9
1981 . . .	2,339.6	122.4	48.8	171.2	2,510.8	3,141.2	5,651.9	6.8	44.4
1982 . . .	2,349.3	152.9	58.1	211.0	2,560.3	3,209.4	5,769.7	8.2	44.4
1983 . . .	2,342.0	205.8	62.9	268.7	2,610.7	3,266.4	5,877.1	10.3	44.4
1984 . . .	2,456.6	189.5	69.5	259.1	2,715.7	3,258.4	5,974.1	9.5	45.5
				PERSONS					
1979 . . .	6,095.7	326.8	66.2	393.0	6,488.7	4,235.6	10,724.4	6.1	60.5
1980 . . .	6,269.9	340.5	68.8	409.3	6,679.2	4,230.5	10,909.7	6.1	61.2
1981 . . .	6,413.9	292.5	61.2	353.7	6,767.6	4,360.3	11,128.0	5.2	60.8
1982 . . .	6,414.3	369.7	82.0	451.6	6,865.9	4,497.0	11,362.9	6.6	60.4
1983 . . .	6,266.5	613.7	79.4	693.2	6,959.7	4,613.0	11,572.6	10.0	60.1
1984 . . .	6,498.7	539.2	94.9	634.1	7,132.8	4,632.5	11,765.4	8.9	60.6

Whether a person has been born in or outside Australia can influence their likelihood of being employed or unemployed. For persons born outside Australia, their period of arrival can also influence their employment status. These characteristics are set out in summary form in the following table.

CIVILIAN LABOUR FORCE, BY BIRTHPLACE AND PERIOD OF ARRIVAL IN AUSTRALIA, JUNE 1984

Birthplace	*Employed*		*Unemployed*				
	Full-time	*Total*	*Looking for full-time work*	*Total*	*Labour force*	*Unemploy-ment rate*	*Partici-pation rate*
			—'000—			—per cent—	
Born in Australia	3,943.0	4,851.4	359.7	430.9	5,282.2	8.2	61.4
Born outside Australia	1,400.1	1,647.4	179.5	203.2	1,850.6	11.0	62.5
Africa	45.0	52.3	*	5.0	57.3	8.7	67.3
America	43.2	53.6	5.1	5.8	59.4	9.8	65.9
Asia	180.4	209.1	42.3	47.3	256.4	18.5	63.4
Lebanon	15.5	16.8	10.4	10.6	27.3	38.6	54.9
Vietnam	22.9	25.5	13.6	14.4	39.9	36.0	68.3
Europe	1,032.4	1,217.9	113.5	129.2	1,347.1	9.6	61.3
Germany	54.7	63.5	4.9	6.0	69.5	8.7	61.2
Greece	67.4	77.0	7.0	7.4	84.4	8.8	61.1
Italy	130.9	151.1	10.2	11.6	162.7	7.2	57.7
Malta	30.0	33.0	*	*	36.4	*	64.2
Netherlands	45.9	55.7	4.7	6.0	61.8	9.8	62.3
Poland	21.1	23.5	*	*	27.5	*	48.4
U.K. and Ireland	514.2	620.7	58.3	66.9	687.6	9.7	62.9
Yugoslavia	74.5	82.7	10.2	10.5	93.2	11.2	64.2
Oceania	99.1	114.5	14.3	15.9	130.4	12.2	71.4
New Zealand	84.6	98.2	11.4	12.2	110.4	11.0	72.7
Arrivals—							
Before1966	630.2	744.9	52.4	59.5	804.4	7.4	54.7
1966-1970	295.9	342.6	41.0	46.2	388.8	11.9	73.1
1971-1975	194.0	232.7	27.6	32.1	264.8	12.1	71.8
1976-1980	159.5	187.3	26.2	30.1	217.4	13.9	67.6
1981-1982	84.9	99.6	15.1	16.7	116.3	14.3	69.8
1983-1984	35.6	40.3	17.3	18.6	59.0	31.6	58.6

The age at which a person leaves school and the level of educational attainment reached can affect the labour force status of that person. The following two tables set out the differential effects of these characteristics.

LEAVERS FROM EDUCATIONAL INSTITUTIONS(*a*): LABOUR FORCE STATUS BY AGE, MAY 1983

Labour force status	*Leavers aged 15 to 19*			*Leavers aged 20 to 24*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
			—'000—			
Employed	73.5	67.2	140.8	23.4	20.4	43.8
Full-time	63.4	52.3	115.8	21.0	16.0	37.0
Part-time	10.1	14.9	25.0	*	4.4	6.9
Unemployed	25.1	28.4	53.5	8.5	5.0	13.4
In the labour force	98.7	95.6	194.3	31.9	25.4	57.3
Not in the labour force	5.5	9.2	14.7	*	*	*
Total	**104.2**	**104.8**	**209.0**	**32.2**	**28.0**	**60.2**
			—per cent—			
Unemployment rate	25.5	29.7	27.6	26.6	19.6	23.5
Participation rate	94.7	91.2	93.0	99.0	90.7	95.1

(*a*) Leavers from educational institutions are persons who were full-time students at some time in the previous year but are not currently full-time students.

CIVILIAN POPULATION AGED 15 AND OVER (*a*): EDUCATIONAL ATTAINMENT AND LABOUR FORCE STATUS, FEBRUARY 1984

	Number ('000)								
	Employed							*Participation rate*	*Unemployment rate*
Educational attainment	*Full time*	*Part time*	*Total*	*Unemployed*	*In the labour force*	*Not in the labour force*	*Total*	*—per cent—*	
MALES									
With post-school qualifications	1,800.8	80.4	1,881.2	118.6	1,999.8	297.4	2,297.2	87.1	5.9
Degree or equivalent	399.6	25.5	425.1	18.9	441.1	49.0	493.1	90.1	4.3
Trade, technical level	1,370.3	54.6	1,424.9	96.7	1,521.6	244.3	1,765.9	86.2	6.4
Other	30.9	*	31.2	*	34.1	*	38.2	89.3	*
Without post-school qualifications	1,960.9	120.4	2,081.3	301.6	2,382.9	754.2	3,137.1	76.0	12.7
Attended highest level of secondary school available	418.5	35.8	454.3	60.6	514.9	103.7	618.6	83.2	11.8
Did not attend highest level of secondary school available	1,534.6	84.4	1,618.9	238.6	1,857.5	642.0	2,499.5	74.3	12.8
Left at age—									
18 years or over	22.2	*	22.9	4.6	27.6	*	30.9	89.1	16.8
16 or 17 years	493.7	27.9	521.6	84.4	606.0	68.8	674.8	89.8	13.9
14 or 15 years	873.2	44.2	917.5	128.4	1,045.9	408.0	1,453.9	71.9	12.3
13 years or under	145.5	11.4	156.9	21.1	178.0	161.8	339.8	52.4	11.9
Never attended school	7.9	*	8.1	*	10.5	8.5	19.0	55.3	*
Still at school	*	36.0	37.8	15.7	53.5	186.0	239.5	22.3	29.3
Total	**3,763.6**	**236.8**	**4,000.3**	**435.8**	**4,436.2**	**1,237.5**	**5,673.7**	**78.2**	**9.8**
FEMALES									
With post-school qualifications	625.3	293.5	918.8	88.5	1,007.2	632.7	1,640.0	61.4	8.8
Degree or equivalent	138.9	45.5	184.3	14.2	198.5	71.9	270.4	73.4	7.1
Trade, technical level	465.7	238.4	704.1	71.1	775.2	532.9	1,308.1	59.3	9.2
Other	20.6	9.7	30.3	*	33.5	27.9	61.4	54.6	*
Without post-school qualifications	887.0	512.2	1,399.2	198.0	1,597.3	2,350.5	3,947.7	40.5	12.4
Attended highest level of secondary school available	225.0	108.3	333.3	41.4	374.7	281.8	656.5	57.1	11.0
Did not attend highest level of secondary school available	658.6	402.9	1,061.5	156.1	1,217.6	2,043.6	3,261.1	37.3	12.8
Left at age—									
18 years or over	11.1	*	14.7	*	16.4	12.8	29.2	56.2	*
16 or 17 years	259.4	112.9	372.2	60.9	433.1	404.7	837.9	51.7	14.1
14 or 15 years	340.3	256.3	596.6	82.8	679.4	1,322.8	2,002.2	33.9	12.2
13 years or under	47.8	30.2	77.9	10.7	88.7	303.2	391.9	22.6	12.1
Never attended school	*	*	*	*	5.0	25.1	30.1	16.6	*
Still at school	*	46.9	47.7	15.4	63.1	164.0	227.0	27.8	24.4
Total	**1,513.1**	**852.6**	**2,365.7**	**301.9**	**2,667.6**	**3,147.1**	**5,814.7**	**45.9**	**11.3**

(*a*) Excludes students boarding at school, some patients in hospitals and sanatoria and inmates of reformatories, jails, etc.

UNDERUTILISATION, UNDEREMPLOYMENT AND UNEMPLOYMENT RATES, AUGUST 1978-1983

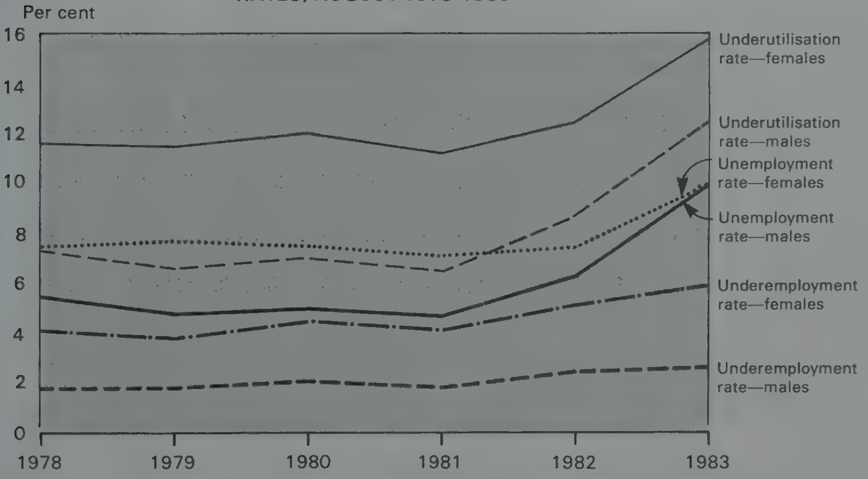


PLATE 19

In the light of the changing economic and social conditions of recent years, there is increasing concern whether the labour offered by individuals can be considered to be 'adequately utilised' by the labour market. A person's labour is deemed to be underutilised if they are either unemployed or underemployed. Underemployment is deemed to exist when a person who usually works full time does not work full time in the reference period for economic reasons, which includes stand downs, short time, or insufficient work, or when a person who worked part-time indicated a preference to work more hours.

Underutilisation, underemployment and unemployment are summarised in the diagram on page 121, in which each category is expressed as a percentage of the labour force.

EMPLOYMENT

This section provides a statistical summary of employment in Australia. Broadly, a person is considered to be employed if he or she is doing any work at all, regardless of the number of hours worked. In the statistics, employment is presented according to the demographic characteristics of employed persons, their occupation and industry, hours worked and whether they are full-time or part-time workers. Data for employed wage and salary earners by whether they work in the private or government sector and estimates for apprentices and qualified tradespersons are also included in this section. Most of the statistics on employment have been derived from the ABS monthly labour force survey, the exception being the two tables on employed wage and salary earners by sector which were derived from the quarterly survey of employment and earnings.

By relating employment levels to population levels, the magnitude of jobs growth in the economy can be evaluated. The measure relating these two levels is the employment/population ratio. Its usefulness lies in the fact that while movements in the employment level reflect net changes in the levels of persons holding jobs, movements in the ratio reflect net changes in the number of jobholders relative to changes in the size of the population. Note that while a rise in employment may not appear as a rise in the ratio because of continuous population growth, a decrease in employment will always appear as a fall in the ratio.

EMPLOYED PERSONS: EMPLOYMENT/POPULATION RATIOS (*a*), JUNE 1979-1984
(Per cent)

	Age group (years)								
June	*15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*65 and over*	*Total*
				MALES					
1979	53.1	82.0	92.5	93.5	89.6	79.9	52.8	11.7	74.3
1980	55.3	83.5	91.7	93.0	89.1	79.2	51.4	10.6	74.2
1981	57.4	84.9	91.8	93.4	88.7	77.7	48.8	10.7	74.4
1982	53.5	81.3	90.8	92.0	87.9	77.7	46.3	9.3	72.5
1983	46.9	74.5	87.4	89.5	84.5	72.3	41.3	9.5	68.9
1984	47.8	76.3	88.1	90.3	85.7	75.4	41.0	9.1	69.8
				MARRIED FEMALES					
1979	45.1	52.8	43.1	53.8	43.2	24.4	11.0	2.5	39.2
1980	41.5	52.2	44.3	54.9	44.9	25.8	12.8	3.7	40.2
1981	40.3	50.5	44.7	54.9	45.9	27.3	8.3	2.8	40.1
1982	31.5	49.3	45.0	55.4	45.4	24.9	9.7	2.7	39.8
1983	41.6	50.3	44.4	55.3	44.1	24.0	10.6	2.8	39.0
1984	34.1	53.0	45.2	55.5	47.9	26.5	10.4	2.7	40.7
				ALL FEMALES					
1979	45.3	62.9	47.7	54.5	45.0	26.8	13.4	2.2	39.8
1980	49.3	63.9	49.2	55.9	46.1	27.6	13.6	3.2	41.3
1981	50.2	64.0	49.9	56.0	47.2	29.0	9.8	2.3	41.4
1982	46.9	63.3	49.4	55.5	47.1	27.1	10.3	2.5	40.7
1983	45.1	63.3	48.6	54.0	45.1	26.5	12.3	2.4	39.9
1984	46.1	63.7	50.3	55.9	48.4	28.4	11.5	2.5	41.1

EMPLOYED PERSONS: EMPLOYMENT/POPULATION RATIOS (*a*), JUNE 1979-1984
(Per cent)

June	*Age group (years)*								*Total*
	15–19	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*65 and over*	
	PERSONS								
1979	49.2	72.5	70.2	74.4	67.8	53.1	32.2	6.2	56.8
1980	52.3	73.7	70.5	74.8	68.1	53.2	31.7	6.3	57.5
1981	53.8	74.5	70.9	75.0	68.4	53.3	28.4	5.9	57.6
1982	50.2	72.3	70.1	74.0	68.0	52.4	27.5	5.4	56.4
1983	46.0	68.9	68.0	72.3	65.2	49.5	26.2	5.4	54.1
1984	46.9	70.0	69.2	73.4	67.4	52.1	25.7	5.2	55.2

(*a*) Employment/population ratio for any group is the number of employed persons expressed as a percentage of the civilian population aged 15 and over in the same group.

The table below presents the status of worker for employed persons. Employers, self-employed persons and wage and salary earners are those who during the survey week worked for one hour or more for pay, profit, commission or payment in kind in a job or a business, or on a farm. Unpaid family helpers are those who during the survey week worked for 15 hours or more without pay in a family business or on a farm.

EMPLOYED PERSONS: STATUS OF WORKER, AUGUST 1979 TO AUGUST 1984
('000)

August	*Employers*	*Self employed*	*Wage and salary earners*	*Unpaid family helpers*	*Total*
1979	339.0	618.2	5,096.8	24.5	6,078.5
1980	366.6	648.4	5,241.5	24.8	6,281.4
1981	345.3	643.1	5,378.6	26.7	6,393.7
1982	353.2	647.0	5,354.3	24.9	6,379.3
1983	321.0	653.1	5,242.5	24.5	6,241.1
1984	335.4	681.8	5,423.8	21.2	6,462.3

A measure of the relative importance of an industry is the size of its workforce. Also of interest is the work effort of that workforce as measured by hours worked. Taken together, employment and hours worked by industry serve as an indicator of labour supplied to that industry. The following table shows the distribution of employed persons by industry and average hours worked.

EMPLOYED PERSONS BY INDUSTRY AND AVERAGE WEEKLY HOURS WORKED, MAY 1984

Industry	*Number ('000)*			*Average weekly hours worked*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
Agriculture and services to agriculture	279.4	93.2	372.6	51.7	27.7	45.7
Forestry and logging, fishing and hunting	21.6	*	24.8	38.4	*	36.1
Mining	90.9	9.1	100.0	36.8	32.2	36.4
Manufacturing	856.4	291.6	1,148.0	38.5	32.7	37.0
Food, beverages and tobacco	128.0	53.4	181.4	37.6	31.6	35.9
Metal products	166.9	24.7	191.7	38.4	33.2	37.7
Other manufacturing	561.5	213.5	774.9	38.7	32.9	37.1
Electricity, gas and water	134.0	16.3	150.2	34.3	30.5	33.9
Construction	382.1	51.3	433.4	39.3	20.8	37.1
Wholesale and retail trade	720.2	561.0	1,281.2	41.2	28.6	35.7
Transport and storage	309.1	58.2	367.2	39.0	30.3	37.6
Communication	103.5	33.2	136.8	34.1	28.5	32.7
Finance, property and business services	320.4	294.6	615.0	39.6	29.8	34.9
Public administration and defence	216.5	108.5	325.0	35.6	32.1	34.4
Community services	415.4	700.3	1,115.7	36.9	27.7	31.1
Recreation, personal and other services	189.9	230.8	420.7	41.6	27.2	33.7
Total	**4,039.3**	**2,451.2**	**6,490.5**	**39.6**	**28.9**	**35.6**

The following table sets out the distribution of employed persons across occupations.

EMPLOYED PERSONS BY OCCUPATION, MAY 1984
('000)

Occupation	*Males*	*Married females*	*All females*	*Persons*
Professional, technical, etc.	551.8	260.0	453.7	1,005.5
Administrative, executive and managerial	375.8	42.9	62.8	438.6
Clerical	325.2	461.9	858.7	1,183.8
Sales	273.9	168.4	317.8	591.7
Farmers, fishermen, timbergetters, etc.	349.8	79.5	93.8	443.6
Miners, quarryworkers, etc.	38.5	*	*	38.9
Transport and communication	279.7	25.8	43.0	322.7
Trades persons, production-process workers and labourers, n.e.c.	1,602.1	147.9	215.3	1,817.5
Service, sport and recreation	242.6	256.8	405.6	648.2
Total	**4,039.3**	**1,443.3**	**2,451.2**	**6,490.5**

Full-time workers are those who usually work 35 hours or more a week or who worked 35 hours or more during the survey week. Part-time workers are those who usually work less than 35 hours a week and who did so during the survey week. Estimates of these workers by sex and age are shown below. In addition, the preferences of part-time workers for more or less hours is also depicted.

PART-TIME WORKERS : WHETHER PREFERRED TO WORK MORE HOURS, BY AGE, JUNE 1984

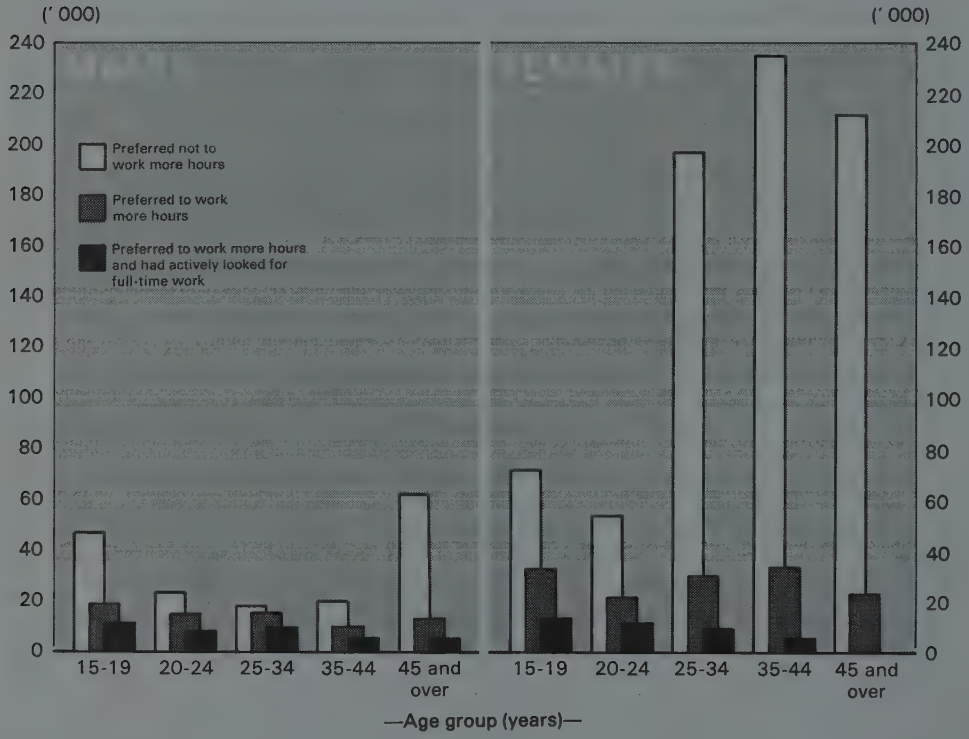


PLATE 20

EMPLOYED PERSONS: FULL-TIME AND PART-TIME WORKERS BY AGE, JUNE 1984
('000)

	Age group (years)								
	15-19	*20-24*	*25-34*	*35-44*	*45-54*	*55-59*	*60-64*	*65 and over*	*Total*
MALES									
Full-time workers	246.3	469.1	1,078.4	931.2	644.2	271.7	122.2	34.7	3,797.7
Part-time workers	65.9	38.7	34.2	30.1	22.5	14.4	13.4	25.1	244.4
Total	*312.2*	*507.8*	*1,112.6*	*961.3*	*666.7*	*286.1*	*135.6*	*59.8*	*4,042.1*
MARRIED FEMALES									
Full-time workers	6.6	112.3	229.0	235.6	155.3	32.9	11.1	*	786.4
Part-time workers	*	34.3	197.9	240.4	133.8	40.4	13.7	5.7	668.1
Total	*8.4*	*146.6*	*426.9*	*476.0*	*289.1*	*73.3*	*24.8*	*9.5*	*1,454.5*
ALL FEMALES									
Full-time workers	186.1	347.7	405.5	309.3	210.3	56.8	20.0	9.5	1,545.4
Part-time workers	105.1	75.4	226.9	269.5	151.7	49.2	20.5	12.9	911.3
Total	*291.2*	*423.1*	*632.4*	*578.8*	*362.0*	*106.1*	*40.5*	*22.5*	*2,456.6*
PERSONS									
Full-time workers	432.5	816.8	1,483.9	1,240.5	854.5	328.5	142.2	44.2	5,343.1
Part-time workers	171.0	114.1	261.1	299.6	174.2	63.6	33.9	38.0	1,155.6
Total	**603.4**	**930.9**	**1,745.0**	**1,540.1**	**1,028.8**	**392.1**	**176.2**	**82.2**	**6,498.7**

Estimates of employed wage and salary earners by sector are contained in the following table. The estimates shown are derived from the quarterly survey of employment and earnings.

EMPLOYED WAGE AND SALARY EARNERS: SECTOR BY STATES AND TERRITORIES, JUNE 1984
('000)

Sector	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Private	1,254.1	955.6	498.3	299.8	298.4	85.6	25.9	42.3	3,459.9
Government	544.4	428.1	253.2	151.4	152.7	51.6	20.9	66.5	1,668.9
Commonwealth	129.1	99.7	48.4	37.0	25.0	10.0	4.4	66.5	419.9
State	353.3	288.5	175.8	106.1	117.3	37.8	15.8(*a*)	..	1,094.8
Local	62.0	39.8	29.1	8.3	10.5	3.8	0.7	..	154.3
Total	**1,798.5**	**1,383.7**	**751.5**	**451.1**	**451.1**	**137.2**	**46.8**	**108.9**	**5,128.8**

(*a*) Northern Territory Government

EMPLOYED WAGE AND SALARY EARNERS: INDUSTRY BY SECTOR, SEPTEMBER 1983 TO JUNE 1984
('000)

	Private sector				*Government sector*			
Industry	*Sept. 1983*	*Dec. 1983*	*Mar. 1984*	*June 1984*	*Sept. 1983*	*Dec. 1983*	*Mar. 1984*	*June 1984*
Agriculture, foresty, fishing and hunting (*a*)	..	..	..	..	11.3	11.4	11.6	12.7
Mining	76.1	77.0	74.3	79.1	6.8	6.8	6.7	6.7
Manufacturing	958.7	953.7	970.1	961.4	55.1	54.5	55.4	54.6
Electricity, gas and water	6.2	6.4	6.0	6.0	134.3	134.1	135.2	135.1
Construction	184.8	179.4	169.6	171.4	50.7	51.7	53.9	53.0
Wholesale and retail trade	988.7	1,024.8	974.6	983.4	4.9	5.0	4.8	5.7
Transport and storage	122.9	128.5	127.1	125.4	148.8	149.7	148.5	149.5
Communication	—	—	—	—	127.1	128.1	127.9	126.2
Finance, property and business services	435.7	441.2	444.4	450.3	91.6	94.0	95.7	95.7
Public administration and defence (*b*)	—	—	—	—	278.3	283.2	287.7	295.2

EMPLOYED WAGE AND SALARY EARNERS: INDUSTRY BY SECTOR, SEPTEMBER 1983 TO JUNE 1984—*continued*

('000)

	Private sector				*Government sector*			
Industry	*Sept. 1983*	*Dec. 1983*	*Mar. 1984*	*June 1984*	*Sept. 1983*	*Dec. 1983*	*Mar. 1984*	*June 1984*
Community services	341.7	340.8	350.8	360.2	708.2	689.4	704.6	710.8
Health	163.7	172.0	173.7	175.5	252.9	251.5	254.6	257.6
Education	79.3	73.8	78.3	80.7	354.7	337.0	347.7	350.5
Other	98.6	95.0	98.8	104.0	100.7	100.9	102.3	102.7
Recreation, personal and other services	316.1	329.2	316.8	322.6	22.9	22.8	23.4	23.7
Total all industry	**3,431.0**	**3,481.0**	**3,434.0**	**3,459.9**	**1,640.0**	**1,630.8**	**1,655.4**	**1,668.9**

(*a*) Out of scope of survey for private sector. (*b*) Excludes members of permanent defence forces and employees of overseas embassies, consulates etc.

Below is a summary of characteristics of apprentices and the year of their apprenticeship. The data was derived from the transition from education to work supplementary survey conducted in May 1983.

APPRENTICES: SUMMARY OF CHARACTERISTICS, MAY 1983

('000)

	Year of apprenticeship				
	First	*Second*	*Third*	*Fourth(a)*	*Total*
Current age—					
15	*	*	*	*	*
16	9.6	3.2	*	*	13.2
17	8.5	13.9	3.2	*	25.6
18	5.4	11.4	19.2	*	38.7
19	*	6.0	12.3	9.3	28.9
20–24	*	5.8	12.4	20.3	39.8
25–34	*	*	*	*	*
Sector—					
Government	6.0	6.3	7.9	6.1	26.3
Non-government(*b*)	23.5	34.6	39.7	27.0	124.8
Industry—					
Manufacturing	9.6	13.0	16.6	13.0	52.2
Construction	*	6.4	8.2	4.9	22.1
Wholesale and retail	3.5	10.7	9.5	6.9	30.6
Transport, etc.	*	*	*	*	6.9
Community	*	*	*	*	3.9
Recreation, etc.	6.8	4.0	3.5	*	17.0
Other(*c*)	3.6	4.7	7.0	3.2	18.5
Country of birth—					
Born in Australia	25.9	34.4	42.2	30.3	132.8
Born outside Australia	3.6	6.4	5.5	*	18.4
Total	**29.5**	**40.8**	**47.6**	**33.1**	**151.1**

(*a*) Includes a small number of fifth year apprentices. (*b*) Includes a small number of persons who did not know. (*c*) Includes mining, electricity, gas, defence, public administration, agriculture and finance.

The following chart is derived from a supplementary survey about tradespersons and depicts their current trade status.

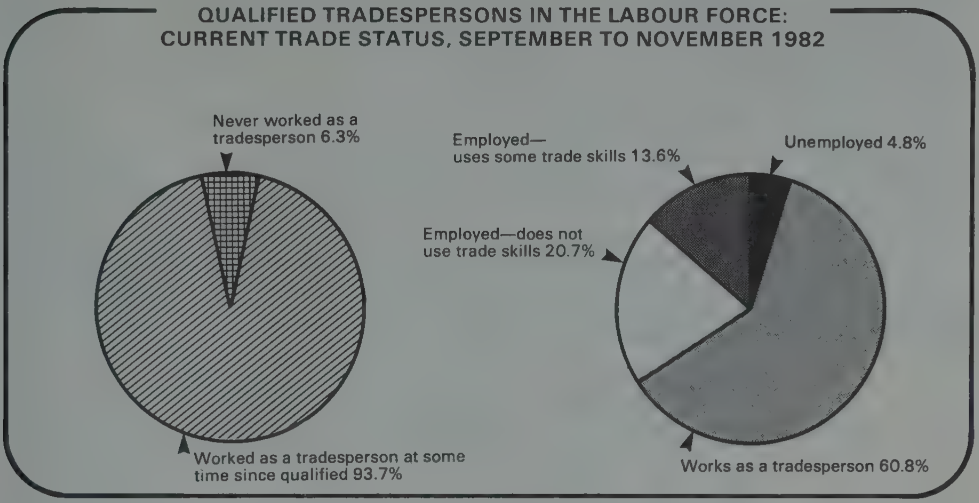

QUALIFIED TRADESPERSONS IN THE LABOUR FORCE: CURRENT TRADE STATUS, SEPTEMBER TO NOVEMBER 1982

PLATE 21

UNEMPLOYMENT RATES
(THE UNEMPLOYMENT IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN LABOUR FORCE IN THE SAME GROUP)

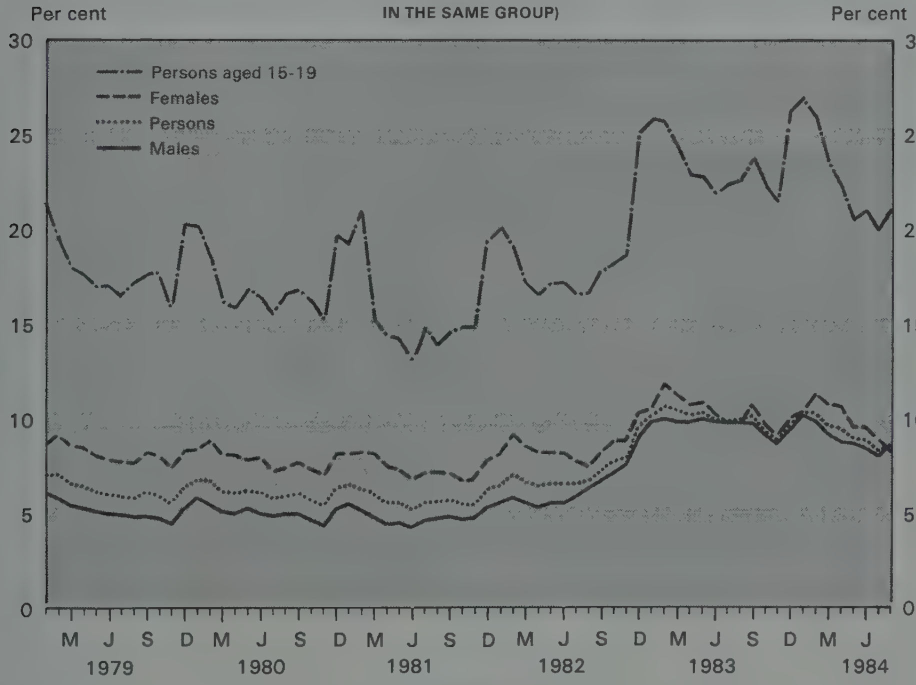


PLATE 22

UNEMPLOYMENT

The unemployment statistics presented in this section have been derived from the ABS monthly labour force survey and its supplementaries.

Broadly a person is considered to be unemployed if he or she satisfies three criteria—not employed, available for work, and taking active steps to find work. The most important characteristics presented include their demographic composition, the duration of unemployment and their educational qualifications. Also shown are some summary statistics on job vacancies.

Measures of unemployment provide one indicator of the underutilization of labour. The two most important measures are the number of persons unemployed and the unemployment rate. The unemployment rate is defined as the number of unemployed expressed as a percentage of the size of the labour force. A chart showing unemployment rates is shown on page 127.

By examining particular groups and characteristics of the unemployed, various economic and social aspects of unemployment can be analysed. While the aggregate unemployment rates shown above are important overall indicators, full-time and part-time unemployment levels and rates for different age groups by sex and marital status are also important. This information is set out in the table below, along with whether those aged 15-24 are looking for their first job.

UNEMPLOYED PERSONS: BY AGE AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, JUNE 1984

	Number unemployed ('000)				*Unemployment rate (per cent)*			
Age	*Males*	*Married females*	*All females*	*Persons*	*Males*	*Married females*	*All females*	*Persons*
LOOKING FOR FULL-TIME WORK								
Total	**349.7**	**59.9**	**189.5**	**539.2**	**8.4**	**7.1**	**10.9**	**9.2**
Aged 15-19	*69.4*	*	*61.2*	*130.5*	*22.0*	*	*24.7*	*23.2*
Looking for first job	29.1	*	30.3	59.5	. .	. .	. .	. .
Attending school	5.6	*	*	8.9	n.a.	n.a.	n.a.	n.a.
Aged 20 and over	*280.4*	*57.8*	*128.3*	*408.7*	*7.3*	*6.9*	*8.6*	*7.7*
20-24	79.0	11.9	46.5	125.5	14.4	9.6	11.8	13.3
25-34	87.9	21.4	41.9	129.8	7.5	8.5	9.4	8.0
35-44	50.9	16.4	24.4	75.3	5.2	6.5	7.3	5.7
45-54	37.4	6.3	12.3	49.7	5.5	3.9	5.5	5.5
55 and over	25.2	*	*	28.4	5.5	*	*	5.2
Aged 15-64	*349.3*	*59.9*	*189.5*	*538.8*	*8.5*	*7.1*	*11.0*	*9.2*
LOOKING FOR PART-TIME WORK								
Total	**25.3**	**40.4**	**69.5**	**94.9**	**9.4**	**5.7**	**7.1**	**7.6**
Aged 15-19	*14.9*	*	*15.6*	*30.5*	*18.4*	*	*13.0*	*15.1*
Attending school	10.6	*	10.6	21.2	21.4	*	15.5	17.9
Aged 20 and over	*10.4*	*39.3*	*53.9*	*64.3*	*5.5*	*5.6*	*6.3*	*6.1*
20-24	5.6	6.0	9.9	13.2	7.1	14.9	11.6	10.4
25-34		17.1	22.6	24.9		8.0	9.1	8.7
35-44	4.9	10.2	12.9	13.6	4.4	4.1	4.6	4.4
45 and over		6.0	8.4	12.6		3.0	3.5	3.9
Aged 15-64	*25.0*	*40.2*	*69.3*	*94.3*	*10.2*	*5.7*	*7.2*	*7.8*

Also of interest are the industry and occupation of their last full-time job. These estimates are set out in the table which follows.

UNEMPLOYED PERSONS: INDUSTRY AND OCCUPATION OF LAST FULL-TIME JOB, MAY 1984

	Total ('000)			*Unemployment rate (per cent)*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
Had worked full time for two weeks or more in the last two years	247.6	106.7	354.3	5.8	4.2	5.2
Industry division or subdivision—						
Agriculture, forestry, fishing and hunting	17.8	*	20.9	5.6	*	5.0
Agriculture and services to agriculture	14.3	*	17.0	4.9	*	4.4
Manufacturing	71.1	19.8	91.0	7.7	6.4	7.3
Food, beverages and tobacco	14.4	*	18.8	10.1	*	9.4
Metal products	19.6	*	21.7	10.5	*	10.2
Other manufacturing	37.1	13.3	50.4	6.2	5.9	6.1
Construction	41.8	*	43.3	9.9	*	9.1
Wholesale and retail trade	47.4	31.0	78.4	6.2	5.2	8.4
Wholesale trade	15.9	*	20.0	5.5	*	5.0
Retail trade	31.5	26.8	58.4	6.6	5.6	6.1
Transport and storage	15.4	*	17.8	4.7	*	4.6
Finance, property and business services	8.6	8.7	17.3	2.6	2.9	2.7
Community services	11.0	18.5	29.5	2.6	2.6	2.6
Recreation, personal and other services	17.5	16.3	33.8	8.4	6.6	7.4
Other industries	17.1	5.5	22.5	3.9	2.6	3.4
Occupation group—						
Professional, technical, etc.	12.1	10.3	22.3	2.1	2.2	2.2
Clerical	10.0	26.0	36.0	3.0	2.9	3.0
Sales	19.1	21.4	40.5	6.5	6.3	6.4
Farmers, fishermen, etc.	19.3	*	22.7	5.2	*	4.9
Transport and communication	17.2	*	18.8	5.8	*	5.5
Tradespersons, production-process workers and labourers, n.e.c.	141.3	19.4	160.7	8.1	8.3	8.1
Service, sport and recreation	17.9	21.6	39.5	6.9	5.1	5.7
Other occupations	10.6	*	13.8	2.5	*	2.8
Other (*a*)	132.0	142.7	274.6	..	..	..
Looking for first job	51.6	55.3	106.9	..	..	..
Looking for full-time work	37.6	42.1	79.6	..	..	..
Other	80.4	87.3	167.8	..	..	..
Stood down	*	5.4	8.1	..	..	..
Total	**382.2**	**254.8**	**637.0**	**8.6**	**9.4**	**8.9**

(*a*) Had never worked for two weeks or more in a full-time job or had not done so in the last two years; industry and occupation were not obtained for these persons.

An important indicator of the severity of unemployment is the length of time a person is unemployed. Two views are presented below—the chart depicts the increase in each duration of unemployment category for 1978-1983 while the table shows a more detailed snapshot as at June 1984. Note that in each case what is shown is current and continuing periods of unemployment rather than completed spells. This is because in the monthly labour force survey, duration of unemployment is the period from the time a person began looking for work or was laid off to the end of the survey week and only applies if the person is still unemployed.

UNEMPLOYED PERSONS : DURATION OF UNEMPLOYMENT, AUGUST 1978 TO AUGUST 1983

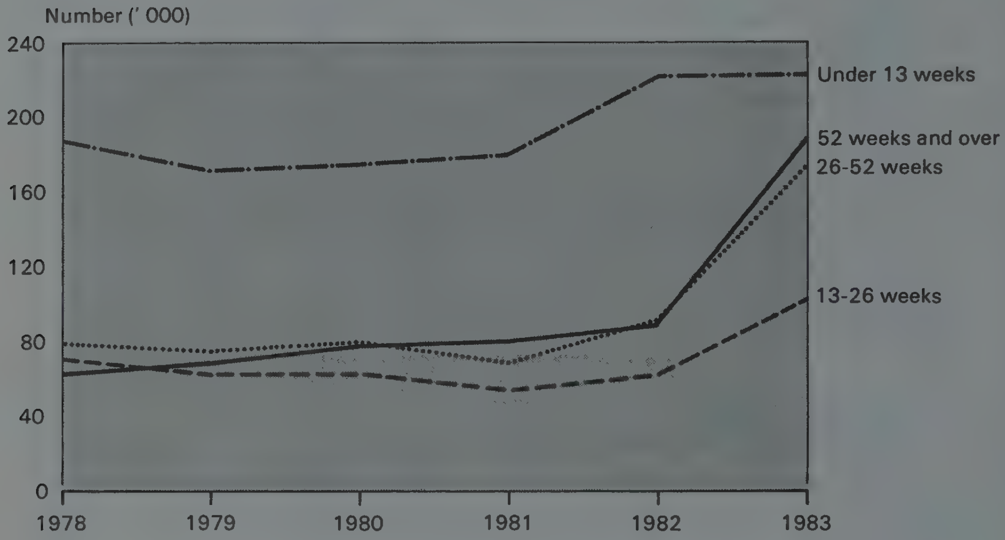


PLATE 23

UNEMPLOYED PERSONS: DURATION OF UNEMPLOYMENT AND AGE, JUNE 1984
('000)

	Age group (years)							Looking for	
Duration of unemployment (weeks)	15–19	20–24	25–34	35–54	Total(a)	Married	Not married	Full-time work	Part-time work
Under 2	10.5	6.1	8.7	8.8	35.7	16.5	19.2	23.1	12.6
2 and under 4	15.4	14.5	14.7	10.6	57.2	23.3	33.9	39.6	17.5
4 and under 8	18.6	15.9	17.2	13.4	66.9	26.7	40.2	51.9	15.0
8 and under 13	16.3	15.5	14.1	12.3	58.8	20.1	38.7	49.4	9.4
13 and under 26	30.6	23.9	23.3	18.7	102.1	35.7	66.4	87.9	14.2
26 and under 39	30.0	17.7	23.0	15.7	89.7	27.4	62.3	80.4	9.2
39 and under 52	6.1	4.8	5.4	7.9	25.0	10.9	14.1	23.3	*
52 and under 65	9.8	10.4	14.4	15.6	54.0	24.4	29.6	46.8	7.2
65 and under 104	11.5	10.3	10.5	16.5	54.5	24.0	30.6	52.1	*
104 and over	12.3	19.6	23.2	26.3	90.2	40.4	49.9	84.6	5.6
Total	**161.1**	**138.7**	**154.7**	**145.6**	**634.1**	**249.3**	**384.8**	**539.2**	**94.9**
			—weeks—						
Average duration									
Mean	31.6	43.6	43.8	53.6	44.6	47.9	42.5	48.2	24.1
Median	21.0	21.0	24.1	31.1	25.0	26.0	24.1	26.1	8.0

(*a*) Includes person aged 55 and over, details for whom are not shown separately.

The number of persons looking for work (shown below) will differ from the number of unemployed persons. This is because the latter includes persons who are waiting to be called back to a full-time or part-time job from which they have been stood down without pay for less than four weeks.

Active steps to find work (also shown below) includes writing, telephoning, applying in person to an employer for work; answering a newspaper advertisement for a job; checking factory or Commonwealth Employment Service (CES) noticeboards; being registered with the CES; checking or registering with any other employment agency; advertising or tendering for work; and contacting friends or relatives.

PERSONS LOOKING FOR WORK: ACTIVE STEPS TAKEN TO FIND WORK AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, JULY 1983

Active steps taken to find work during current period of unemployment	*Looking for full-time work*				*Looking for part-time work*			
	Males	*Females*	*Persons*		*Males*	*Females*	*Persons*	
	—'000—		'000	Per cent	—'000—		'000	Per cent
Registered with the CES and								
Took no other active steps	10.1	5.7	15.9	2.7	*	*	*	*
Contacted prospective employers	339.6	127.1	466.7	78.9	5.2	12.8	18.0	22.6
Took other active steps (*a*)	24.0	9.6	33.6	5.7	*	*	*	*
Total registered with the CES	*373.7*	*142.4*	*516.2*	*87.2*	*6.4*	*15.4*	*21.9*	*27.5*
Not registered with the CES and—								
Contacted perspective employers	26.6	41.9	68.5	11.6	12.5	37.5	49.9	62.8
Took other active steps (*a*)	*	4.4	7.0	1.2	*	5.2	7.7	9.7
Total not registered with the CES	*29.2*	*46.4*	*75.5*	*12.8*	*15.0*	*42.7*	*57.7*	*72.5*
Total	**402.9**	**188.8**	**591.7**	**100.0**	**21.4**	**58.1**	**79.5**	**100.0**

(*a*) Includes persons who contacted friends, relatives or other persons and those who registered with an employment agency other than the CES.

Job vacancies

Job vacancy statistics taken together with unemployment statistics assist in the assessment of the demand for labour. However, the unemployment and job vacancy statistics should be regarded as complimentary or coincident indicators. This is because the monthly labour force survey (which collects unemployment) and the quarterly survey of employers (which collects job vacancies) utilise different collection methodologies, sample designs, definitions and concepts.

A job vacancy is a job available for immediate filling on the survey date and for which recruitment action had been taken by the employer. Recruitment action includes efforts to fill vacancies by advertising, by factory notices, by notifying government or private employment agencies or trade unions and by contacting, interviewing or selecting applicants already registered with the enterprise or organisation. Excluded are jobs available only to existing employees of the organisation; vacancies to be filled by persons already hired or by promotion or transfer of existing employees; vacancies to be filled by employees returning from paid or unpaid leave or after industrial disputes; vacancies not available for immediate filling on the survey date; vacancies not available within the particular State or Territory to which the survey return relates; vacancies for work carried out under contract; and vacancies for which no effort is being made to fill the position.

JOB VACANCIES AND JOB VACANCY RATES(*a*): STATES AND TERRITORIES

Month	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
JOB VACANCIES ('000)									
1977 March	14.5	18.0	5.3	3.3	4.0	1.6	0.7	2.2	49.6
1978 March	13.2	11.5	3.5	1.8	3.0	1.0	0.4	1.8	36.3
1979 May	14.0	10.6	3.5	2.2	2.1	0.7	0.5	0.7	34.3
1980 May	13.0	8.1	3.0	1.4	2.2	0.8	0.5	0.8	29.8
1981 May	18.5	8.3	3.1	1.0	3.2	0.5	0.7	0.5	35.7
1982 May	9.0	7.6	3.9	1.2	2.2	0.4	0.2	0.8	25.3
1983 February	5.8	5.8	1.9	0.7	*	0.4	0.4	0.6	16.9
May	6.9	5.3	1.7	1.0	*	0.3	0.3	0.6	17.5
August	5.9	5.8	1.3	1.1	0.9	0.4	0.3	0.9	16.7
November—old (*b*)	7.8	4.5	2.0	1.3	1.4	0.7	0.3	0.9	19.1
—new (*c*)	11.2	6.5	4.1	2.1	3.5	0.8	0.5	1.3	30.1
1984 February	19.6	10.1	4.5	3.4	3.7	1.2	0.5	1.3	44.3
May	14.7	8.9	4.0	2.5	2.0	0.6	0.6	1.5	34.8
August	17.5	7.8	4.0	2.7	2.9	0.8	0.6	1.2	37.6

JOB VACANCIES AND JOB VACANCY RATES(*a*): STATES AND TERRITORIES—*continued*

Month	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
JOB VACANCY RATES (per cent)									
1977 March	1.0	1.6	1.0	0.8	1.2	1.4	2.5	2.7	1.2
1978 March	0.9	0.9	0.6	0.4	0.8	0.8	1.5	2.3	0.8
1979 May	0.9	0.9	0.7	0.6	0.6	0.6	1.7	1.0	0.8
1980 May	0.9	0.7	0.5	0.4	0.6	0.7	1.7	1.1	0.7
1981 May	1.2	0.7	0.6	0.3	0.9	0.4	2.3	0.7	0.8
1982 May	0.6	0.7	0.7	0.3	0.6	0.4	0.7	1.0	0.6
1983 February	0.4	0.6	0.4	0.2	0.4	0.4	1.2	0.8	0.4
May	0.5	0.5	0.3	0.3	0.4	0.3	0.9	0.8	0.5
August	0.4	0.6	0.3	0.3	0.3	0.4	1.0	1.2	0.4
November—old(*b*)	0.6	0.4	0.4	0.3	0.4	0.6	1.0	1.2	0.5
—new(*c*)	0.7	0.5	0.5	0.5	*	0.7	*	1.3	0.6
1984 February	1.0	0.8	*	0.8	*	0.9	*	1.2	0.9
May	0.8	0.7	0.5	0.6	*	*	1.1	1.4	0.7
August	1.0	0.6	0.6	0.6	0.7	0.7	1.3	1.2	0.8

(*a*) Job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.
(*b*) Results from payroll tax based surveys. (*c*) Result of sample surveys of employers.

PERSONS NOT IN THE LABOUR FORCE

Persons not in the labour force represent that group of the population who during a particular week are not employed or unemployed. Interest in this group centres primarily around their potential to participate in the labour force.

In this section, data came from the supplementary survey of persons not in the labour force. Attention is given to their demographic characteristics as well as focussing on their degree of attachment to the labour force. Aspects such as whether they want a job, or whether they are discouraged jobseekers are emphasised.

Details of the reasons why persons left their last job are presented below. The table also shows that most persons not in the labour force did not want work and, of those who did want work, the majority were available to start work. The most frequently mentioned reason people left their last job was retirement or the desire to no longer work.

PERSONS NOT IN THE LABOUR FORCE(*a*): WHETHER WANTED TO WORK, WHETHER AVAILABLE TO START WORK WITHIN FOUR WEEKS AND REASON FOR LEAVING LAST JOB, MARCH 1984
('000)

Reason for leaving last job(b)	*Wanted to work*			*Does not want to work*	*Total*
	Available to start(c)(d)	*Not available to start(c)*	*Total*		
Dismissed, retrenched	83.4	15.3	98.7	132.1	230.8
Seasonal or temporary job; returned to studies	90.3	18.0	108.3	160.7	269.0
Retired/did not want to work any longer	45.5	7.6	53.1	974.5	1,027.6
Unsatisfactory work arrangements	30.0	6.1	36.1	31.3	67.4
Own ill health or injury	49.6	34.7	84.3	402.3	486.6
Left to get married	46.9	11.2	58.1	475.1	533.2
Pregnancy/to have children	152.6	58.0	210.6	311.6	522.2
To look after family or other persons	39.8	10.3	50.1	165.6	215.7
Travel, changed residence, spouse transferred	66.2	13.9	80.1	103.5	183.6
Other reasons	21.7	4.0	25.7	43.6	69.3
Never had a job(*b*)	107.7	35.6	143.3	527.2	670.4
Not asked(*e*)	9.3	16.3	25.6	*	25.6
Total	**743.0**	**231.0**	**974.0**	**3,327.4**	**4,301.4**

(*a*) Excludes students boarding at school, some patients in hospitals and sanatoria and inmates of reformatories, jails, etc. (*b*) Paid employment, full-time or part-time, for two weeks or more in any job or business. (*c*) Work within four weeks. (*d*) Includes persons who don't know whether available to start work within four weeks. (*e*) Persons who had a job but, up to the end of the survey week, had been away from work without pay for four weeks or longer and had not been actively looking for work.

The remainder of the data presented in this section are based on the newly introduced concept of marginal attachment to the labour force. For a comprehensive discussion of this concept see *Employment, Underemployment and Unemployment, 1966-1983* (6246.0) and *Persons Not in the Labour Force, March 1984* (6220.0).

Persons with marginal attachment to the labour force are those who were not in the labour force in the survey week and wanted to work and: were available to start work within four weeks; or were actively looking for work but were not available to start work within four weeks. Those persons with marginal attachment to the labour force can be further divided into two groups: discouraged jobseekers; or, those other persons who wanted to work and were available to start work within four weeks. Discouraged jobseekers are those persons with marginal attachment to the labour force who wanted to work and were available to start work within four weeks but whose main reason for not taking active steps to find work was that they believed they would not be able to find a job for any of the following reasons: considered by employers to be too young or too old; difficulties with language or ethnic background; lack the necessary training, skills or experience; no jobs in their locality or line of work or no jobs at all. A summary of the characteristics of these groups is shown in the following table.

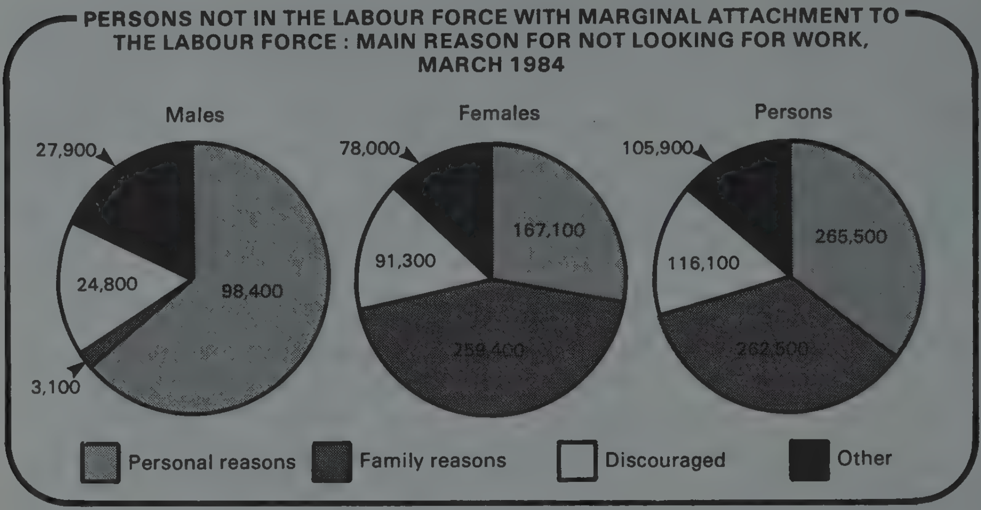
PERSONS NOT IN THE LABOUR FORCE WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE: SUMMARY OF CHARACTERISTICS, MARCH 1984

('000)

	Discouraged jobseekers			*All persons who wanted to work and were available to start work within 4 weeks*			*All persons with marginal attachment to the labour force*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Total	**24.8**	**91.3**	**116.1**	**150.9**	**592.1**	**743.0**	**154.2**	**595.8**	**750.0**
Marital Status—									
Married	12.8	63.9	76.8	51.0	409.6	460.6	51.7	411.4	463.1
Not married	12.0	27.3	39.3	99.9	182.5	282.3	102.5	184.4	286.9
Age group (years)									
15–19	5.2	4.8	10.0	56.9	63.7	120.7	58.5	64.7	123.2
20–24	*	4.8	6.7	16.2	62.7	78.9	16.9	63.5	80.3
25–34	*	18.7	19.3	13.2	202.7	216.0	13.4	203.9	217.3
35–44	*	20.5	21.2	9.1	137.7	146.8	9.4	138.2	147.6
45–54	*	25.0	27.2	13.5	73.4	86.9	13.7	73.9	87.5
55–64	7.5	11.8	19.4	24.8	40.4	65.2	25.0	40.4	65.4
65 and over	6.6	5.6	12.3	17.2	11.3	28.6	17.2	11.3	28.6
Type of work preferred—									
Prefers to work full-time	12.9	17.1	30.0	70.5	89.9	160.4	72.9	91.3	164.1
Prefers to work part-time	10.6	68.5	79.1	73.8	484.2	558.0	74.7	486.5	561.2
No preference	*	5.7	7.0	6.6	18.0	24.6	6.6	18.0	24.6
Whether looked for work in the last 12 months—									
Had not looked for work	12.5	60.0	72.5	95.6	460.5	556.1	95.6	460.5	556.1
Had looked for work	12.3	31.3	43.6	55.3	131.6	186.9	58.6	135.3	193.8
Less than 5 weeks ago	4.5	8.7	13.2	23.5	45.0	68.4	26.8	48.7	75.4
5 and less than 8 weeks ago	*	9.6	11.3	12.0	36.6	48.6	12.0	36.6	48.6
8 and less than 13 weeks ago	*	5.6	8.5	10.0	22.1	32.1	10.0	22.1	32.1
13 and less than 52 weeks ago	3.3	7.4	10.7	9.8	27.9	37.7	9.8	27.9	37.7
Work experience—									
Has never had a job(*a*)	3.6	7.5	11.1	43.3	64.4	107.7	44.3	65.0	109.3
Has had a job(*a*)	21.2	83.8	105.0	107.6	527.7	635.3	109.9	530.8	640.7
Worked in the last year	5.7	11.8	17.6	47.5	105.0	152.5	48.9	105.9	154.7
Within the last 6 months	3.1	6.4	9.6	34.4	67.0	101.4	35.1	67.8	102.9
6 to 12 months ago	*	5.4	8.0	13.2	38.0	51.1	13.7	38.1	51.8
Worked 1 to 3 years ago	7.9	19.4	27.3	30.8	116.7	147.5	31.5	117.2	148.7
Worked 3 to 10 years ago	6.6	28.9	35.5	27.0	196.0	223.0	27.2	197.0	224.2
Worked more than 10 years ago	*	23.7	24.7	*	110.1	112.3	*	110.8	113.0
Reason for leaving last job(*a*)—									
Dismissed, retrenched	7.4	17.2	24.6	21.7	61.7	83.4	22.2	61.8	84.0
Seasonal/temporary, returned to studies	3.6	9.9	13.4	26.5	63.8	90.3	27.3	64.3	91.6
Retired, did not want to work any longer	5.2	7.5	12.7	18.0	27.5	45.5	18.1	27.5	45.6
Own ill health or injury	*	5.2	6.7	21.2	28.4	49.6	21.9	28.4	50.3
Family considerations	*	24.6	24.7	*	237.4	239.3	*	238.9	240.8
Left to get married	*	8.4	8.4	*	46.9	46.9	*	47.4	47.4
Left to have children	*	11.4	11.4	*	152.6	152.6	*	153.4	153.4
Other family considerations	*	4.7	4.8	*	37.8	39.8	*	38.1	40.1
Travel, moved house, spouse transferred	*	12.4	13.3	4.7	61.5	66.2	4.9	62.1	67.1
Unsatisfactory work arrangements	*	4.2	5.7	5.5	24.5	30.0	5.5	24.8	30.3
Other reasons	*	*	3.8	6.0	15.7	21.7	6.0	15.7	21.7
Not asked(*b*)	..	..	..	*	7.3	9.3	*	7.3	9.3
Never had a job(*a*)	3.6	7.5	11.1	43.3	64.4	107.7	44.3	65.0	109.3

(*a*) Paid employment, full-time or part-time, for two weeks or more in any job or business. (*b*) Persons who wanted a job but, up to the end of the survey week, had been away from work without pay for four weeks or longer and had not been actively looking for work.

The following chart depicts, for persons with marginal attachment to the labour force, their main reason for not actively seeking work. That is, whether they were not actively seeking work predominantly because of personal reasons, family reasons, or discouragement.



PERSONS NOT IN THE LABOUR FORCE WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE : MAIN REASON FOR NOT LOOKING FOR WORK, MARCH 1984

PLATE 24

WAGE RATES, EARNINGS AND INCOME

Industrial conciliation and arbitration

Legal minimum rates of pay for some 90 per cent of Australian wage and salary earners are prescribed in awards and determinations of Federal and State industrial tribunals or in collective agreements registered with them.

In June 1983 the Australian Conciliation and Arbitration Commission met to consider the formulation of new wage fixing principles in relation to the determining of national wage adjustments based on movements in the consumer price index.

On 23 September 1983, the Commission announced that it would try once again to operate a centralised system based on prima facie full indexation. It awarded an increase of 4.3 per cent (being the movement in the Consumer Price Index for the March and June 1983 quarters) effective from 6 October 1983, on condition that any award be varied only if every union party to the award gave a public and unequivocal commitment to the new principles announced by the Commission. The majority of unions had given this commitment.

Under the new system, the Commission is to adjust its award wages and salaries every six months in relation to the last two quarterly movements of the CPI unless it is persuaded to the contrary.

The subsequent round of hearings in February-March 1984 resulted in the recommendation of a further 4.1 per cent increase based on CPI movements for the September and December 1983 quarters operative from 6 April 1984. A negative movement in the CPI for the combined March and June 1984 quarters, resulting from the introduction of a non-contributory universal health scheme in March has led to the decision to defer any wage and salary adjustment until 1985.

The principles of the new system are to be reviewed after a period of two years. In the meantime, a committee to review the Australian industrial relations law and systems chaired by Professor K. Hancock has been established. Included in the committee's terms of reference is the conduct of wage fixation and the determination of employment conditions, the recommendations of which may well influence the wage fixing environment both at Federal and State level.

Award rates of pay indexes

The award rates of pay indexes are based on the occupation structure existing in May 1976. Based on a representative sample of award designations, the indexes are designed to measure trends in rates payable under awards. The base period chosen for the indexes is June 1976. Estimates of minimum award rates of pay for each component of the series are expressed as index numbers such that June 1976 = 100.0.

More detailed information including explanatory notes, definitions, etc., used in the indexes is contained in the monthly publication *Award Rates of Pay Indexes, Australia* (6312.0).

WAGE AND SALARY EARNERS: INDEXES OF WEEKLY AWARD RATES OF PAY, ADULT MALES AND ADULT FEMALES, INDUSTRIES, JUNE 1979 TO JUNE 1984

(Base: Weighted Average Minimum Award Rate, June 1976 = 100.0)
(Index numbers)

	June					
Industry	*1979*	*1980*	*1981*	*1982*	*1983*	*1984*
MALES						
Manufacturing—						
Food, beverages and tobacco	128.0	135.8	155.6	173.4	183.7	200.8
Textiles, clothing and footwear	127.5	134.6	154.7	176.6	187.0	203.4
Paper, printing, etc.	127.8	136.9	157.4	179.9	183.4	199.2
Chemical, petroleum and coal products	128.1	137.0	155.4	177.7	184.4	200.3
Metal products, machinery and equipment—	130.4	141.5	159.3	188.6	191.2	207.5
Basic metal products	130.2	139.7	157.7	180.3	182.8	198.5
Fabricated metal products, other machinery, etc	132.1	143.9	162.2	194.6	196.5	213.6
Transport equipment	128.3	139.3	156.2	185.1	188.0	204.2
Other	128.9	138.6	157.4	179.6	186.9	203.0
Non-manufacturing—						
Mining	129.1	138.1	154.6	173.8	181.0	196.6
Electricity, gas and water	126.1	136.0	153.8	174.0	183.0	198.4
Construction	128.6	137.8	156.6	179.2	187.9	203.8
Wholesale trade	129.2	137.3	157.1	178.3	187.3	204.4
Retail trade	127.5	137.2	156.5	176.1	185.5	202.6
Transport and storage	127.9	137.8	155.1	176.0	182.8	198.7
Communication	126.5	137.2	157.0	182.0	189.5	205.7
Finance, business services	126.2	136.4	154.4	173.6	183.9	200.1
Public administration and defence	124.4	134.8	152.2	170.5	180.0	196.0
Community services	125.3	135.0	155.0	175.1	183.5	200.5
Recreation, personal and other services	127.0	136.4	154.2	170.5	182.0	197.7
Total all industries	**127.7**	**137.4**	**156.0**	**177.9**	**185.6**	**201.8**
FEMALES						
Manufacturing—						
Food, beverages and tobacco	127.9	134.5	156.8	174.7	182.9	199.4
Textiles, clothing and footwear	127.6	133.5	155.6	173.4	186.4	202.6
Paper, printing, etc.	127.1	134.0	155.9	180.2	184.2	200.3
Chemical, petroleum and coal products	126.2	132.3	153.4	170.6	179.3	194.6
Metal products, machinery and equipment—	129.7	139.6	159.4	187.2	191.5	208.1
Basic metal products	127.1	134.3	154.0	172.6	179.3	194.5
Fabricated metal products; other machinery, etc	130.5	140.8	161.0	190.9	194.0	210.8
Transport equipment	128.3	138.9	157.3	183.2	190.4	206.9
Other	128.2	136.7	157.7	175.7	185.0	201.3
Non-manufacturing—						
Electricity, gas and water	126.9	139.3	156.3	170.7	177.3	193.1
Construction	128.3	136.4	156.6	169.9	177.0	192.2
Wholesale trade	128.8	135.4	157.2	176.6	186.8	203.4
Retail trade	126.8	133.2	155.5	172.6	181.9	200.3
Transport and storage	127.8	135.2	154.5	172.4	182.0	198.2
Communication	125.4	135.0	151.1	170.5	180.6	196.1
Finance, business services	126.4	134.7	154.5	172.0	183.4	199.3
Public administration and defence	126.2	136.8	154.0	169.7	179.2	196.2
Community services	126.0	135.3	155.7	177.5	185.9	203.1
Recreation, personal and other services	127.1	138.5	156.5	170.1	178.6	194.8
Total all industries	**127.1**	**135.5**	**155.9**	**175.4**	**184.3**	**201.0**

Surveys of earnings and hours

Surveys collecting information on earnings and hours, as well as those on employment, job vacancies and overtime have undergone recent redevelopment. These surveys now use a common statistical frame (the ABS register of businesses), statistical unit, industry classifications, common data concepts and definitions and, where possible, reference period. More information on this redevelopment is contained in the publication *New Statistical Series: Employment, Average Weekly Earnings, Job Vacancies and Overtime* (6256.0).

Average weekly earnings

Statistics of average weekly earnings are produced quarterly, and are based on employment and earnings information obtained from a sample survey of employers. They relate to earnings of employees in respect of a single pay period ending on or before a specific date near the middle of the quarter. If, for a particular survey respondent, that pay period was affected unduly by an industrial dispute, plant breakdown, fire, etc, particulars for the previous normal pay period were obtained. Total earnings are gross earnings in a pay period, while ordinary time earnings refers to that part of total earnings attributable to award, standard or agreed hours of work.

Statistics of average weekly earnings are published in the quarterly publication *Average Weekly Earnings, States and Australia* (6302.0). The current series was introduced in December quarter 1983, to complete the redevelopment of average weekly earnings series from the series based principally on information from payroll tax returns. Average weekly earnings statistics were revised back to September 1981 with the introduction of the new series.

AVERAGE WEEKLY EARNINGS OF EMPLOYEES, 1981-1984

	Male employees			*Female employees*			*All employees*		
	Full-time adult		*Total*	*Full-time adult*		*Total*	*Full-time adult*		*Total*
Quarter	*Weekly ordinary time earnings*	*Weekly total earnings*	*Weekly total earnings*	*Weekly ordinary time earnings*	*Weekly total earnings*	*Weekly total earnings*	*Weekly ordinary time earnings*	*Weekly total earnings*	*Weekly total earnings*
					—dollars—				
1981									
September	283.20	306.80	283.30	230.60	236.70	190.30	267.00	284.80	247.20
December	295.90	322.80	296.00	239.10	245.90	193.00	278.50	299.00	255.60
1982									
March	309.80	336.40	312.40	246.10	253.20	202.60	289.40	310.10	269.20
June	320.00	347.00	322.30	256.90	263.50	210.80	300.10	320.50	278.30
September	334.20	357.90	329.90	265.90	271.70	217.00	312.40	330.30	285.00
December	346.30	370.30	337.60	276.70	282.20	218.70	324.80	342.70	290.40
1983									
March	350.50	370.30	341.00	280.90	286.20	225.30	328.60	343.70	295.40
June	353.40	375.00	343.30	281.80	288.20	226.70	330.80	347.30	297.00
September	357.10	379.80	349.70	283.80	289.90	228.30	333.50	350.80	300.80
December	368.90	394.10	362.00	297.40	303.90	237.20	346.00	365.10	311.30
1984									
March	376.20	400.70	370.60	304.10	311.00	246.50	353.10	371.90	321.30
June	388.00	415.70	383.80	316.90	324.20	257.10	365.20	386.30	333.40

In the December quarter survey, additional information is collected relating to part-time and junior employees, managerial staff and hours of work as at a reference date in November.

FULL-TIME NON-MANAGERIAL EMPLOYEES : AVERAGE EARNINGS AND HOURS PAID FOR, INDUSTRIES, NOVEMBER 1983

Industry	*Males*			*Females*			*Persons*		
	Average weekly earnings	*Average weekly hours paid for*	*Average hourly earnings*	*Average weekly earnings*	*Average weekly hours paid for*	*Average hourly earnings*	*Average weekly earnings*	*Average weekly hours paid for*	*Average hourly earnings*
	($)		($)	($)		($)	($)		($)
ADULT EMPLOYEES									
Mining	535.30	41.3	12.96	366.30	39.3	9.32	523.00	41.2	12.69
Manufacturing									
Food, beverages and tobacco	366.20	41.9	8.74	288.70	38.8	7.44	345.70	41.3	8.37
Textiles, clothing and footwear	331.30	42.1	7.87	239.60	40.1	5.98	268.10	40.6	6.60
Paper, printing, etc.	378.00	41.4	9.13	280.50	39.7	7.07	345.70	41.0	8.43
Chemical, petroleum and coal products	392.80	39.9	9.84	291.90	36.7	7.95	363.60	38.9	9.35
Metal products, machinery and equipment									
Basic metal products	399.10	40.4	9.88	311.30	38.7	8.04	392.50	40.3	9.74
Fabricated metal products, other machinery, etc.	357.10	39.5	9.04	258.50	38.3	6.75	336.00	39.2	8.57
Transport equipment	360.30	40.8	8.83	268.70	39.3	6.84	350.20	40.6	8.63
Total metal products, etc.	*367.30*	*40.0*	*9.18*	*265.30*	*38.5*	*6.89*	*351.10*	*39.8*	*8.82*
Other manufacturing	333.30	42.0	7.94	256.10	40.5	6.32	319.70	41.7	7.67
Total manufacturing	*362.10*	*40.8*	*8.88*	*265.10*	*39.2*	*6.76*	*337.70*	*40.4*	*8.36*
Electricity, gas and water	412.80	39.5	10.45	311.40	36.7	8.49	405.20	39.3	10.31
Construction	373.50	40.5	9.22	264.30	37.9	6.97	362.50	40.3	9.00
Wholesale trade	338.30	40.8	8.29	273.00	39.7	6.88	319.80	40.5	7.90
Retail trade	280.70	40.5	6.93	233.40	40.2	5.81	261.90	40.4	6.48
Transport and storage, communication	394.10	40.5	9.73	337.10	39.0	8.64	385.00	40.3	9.55
Finance, business services	367.90	39.7	9.27	282.20	38.0	7.43	320.60	38.7	8.28
Public administration, community services, etc.	400.00	38.9	10.28	337.10	37.8	8.92	367.40	38.3	9.59
Other industries	308.90	39.9	7.74	263.50	39.3	6.70	289.20	39.6	7.30
Total all industries	**374.00**	**40.2**	**9.30**	**299.30**	**38.5**	**7.77**	**348.30**	**39.6**	**8.80**
JUNIOR EMPLOYEES									
Mining	305.00	38.6	7.90	*	37.9	8.56	298.80	38.4	7.78
Manufacturing									
Food, beverages and tobacco	212.20	39.5	5.37	203.10	40.0	5.08	207.00	39.6	5.23
Textiles, clothing and footwear	169.90	39.9	4.26	172.80	39.7	4.35	172.30	39.8	4.33
Paper, printing, etc.	167.40	39.8	4.21	160.30	37.4	4.29	165.70	39.3	4.22
Chemical, petroleum and coal products	199.40	38.1	5.23	192.30	38.0	5.06	196.40	38.1	5.15
Metal products, machinery and equipment									
Basic metal products	233.80	36.5	6.41	221.60	38.4	5.77	233.50	36.6	6.38
Fabricated metal products, other machinery, etc.	203.70	39.8	5.12	188.60	38.4	4.91	200.80	39.6	5.07
Transport equipment	208.10	38.5	5.41	161.70	38.1	4.24	203.30	38.5	5.28
Total metal products, etc.	*211.40*	*38.8*	*5.45*	*186.40*	*38.3*	*4.87*	*208.50*	*38.7*	*5.39*
Other manufacturing	175.30	39.9	4.39	176.10	39.2	4.49	175.40	39.8	4.41
Total manufacturing	*196.30*	*39.2*	*5.01*	*178.10*	*38.9*	*4.58*	*191.60*	*39.2*	*4.89*
Electricity, gas and water	234.30	37.9	6.18	207.40	37.3	5.56	228.90	37.8	6.06
Construction	207.00	39.0	5.31	162.30	37.7	4.31	200.80	38.9	5.16
Wholesale trade	187.20	40.3	4.65	182.10	39.6	4.60	185.50	40.0	4.64
Retail trade	167.60	41.6	4.03	156.50	39.3	3.98	163.50	40.6	4.03
Transport and storage, communication	217.70	38.7	5.63	201.00	38.4	5.23	211.80	38.6	5.49
Finance, business services	208.20	39.5	5.27	186.40	38.2	4.88	192.00	38.6	4.97
Public administration, community services, etc.	204.10	38.9	5.25	197.40	38.2	5.17	199.60	38.4	5.20
Other industries	206.20	41.6	4.96	153.30	40.5	3.79	175.20	41.0	4.27
Total all industries	**194.80**	**40.0**	**4.87**	**181.50**	**38.8**	**4.68**	**188.50**	**39.4**	**4.78**

Distribution and composition of earnings

Statistics on the distribution of employees according to weekly earnings and hours, and the composition of weekly earnings and hours for various categories of employees and principal occupations are produced from a survey of employers last conducted in May 1983.

The majority of employers selected are requested to supply relevant details, on separate questionnaires, for a sample of their employees. Individual employees are randomly selected by the employers in accordance with instructions supplied by the ABS. Employers with fewer than 10 employees are required to complete a questionnaire for every employee.

The information presented in this subsection relates solely to the earnings data collected in the May 1983 survey. The table below sets out the composition of average weekly earnings of employees by State and Territory.

COMPOSITION OF AVERAGE WEEKLY EARNINGS: ALL EMPLOYEES, STATES AND TERRITORIES, MAY 1983
($)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
MALES									
Overtime	20.00	21.70	18.50	19.00	24.30	17.70	31.80	12.50	20.40
Ordinary time									
Award or agreed base rate of pay	308.30	311.90	300.30	300.70	308.30	300.60	328.90	368.90	308.50
Payment by measured result (*a*)	5.10	2.30	3.60	4.30	3.90	7.40	2.90	*	4.00
Over award and other pay	9.60	11.60	8.60	7.40	10.70	6.00	9.40	*	9.70
Total	**343.00**	**347.50**	**331.00**	**331.40**	**347.30**	**331.60**	**373.10**	**388.80**	**342.60**
FEMALES									
Overtime	3.70	4.40	3.50	3.30	3.20	3.00	*	4.00	3.80
Ordinary time									
Award or agreed base rate of pay	226.30	223.90	215.00	217.00	200.40	200.60	253.60	259.00	221.20
Payment by measured result (*a*)	0.70	*	*	*	*	*	*	..	0.80
Over award and other pay	4.20	3.80	2.70	2.40	3.00	*	1.60	*	3.50
Total	**235.00**	**233.30**	**222.10**	**223.20**	**207.10**	**206.60**	**261.10**	**266.40**	**229.30**

(*a*) Earnings which vary according to measured performance (e.g. piecework, production and task bonuses or commission).

Average weekly ordinary time earnings can vary across occupation, and this is shown in the following chart. Note that males in the 'Miners' group had the highest average weekly earnings, while those in 'Sales' had the lowest in May 1983. For females the occupation group with the highest average weekly earnings was 'Professional' and the lowest was 'Tradespersons'.

AVERAGE WEEKLY ORDINARY TIME AND TOTAL EARNINGS OF ADULT EMPLOYEES IN MAJOR OCCUPATION GROUPS, MAY 1983

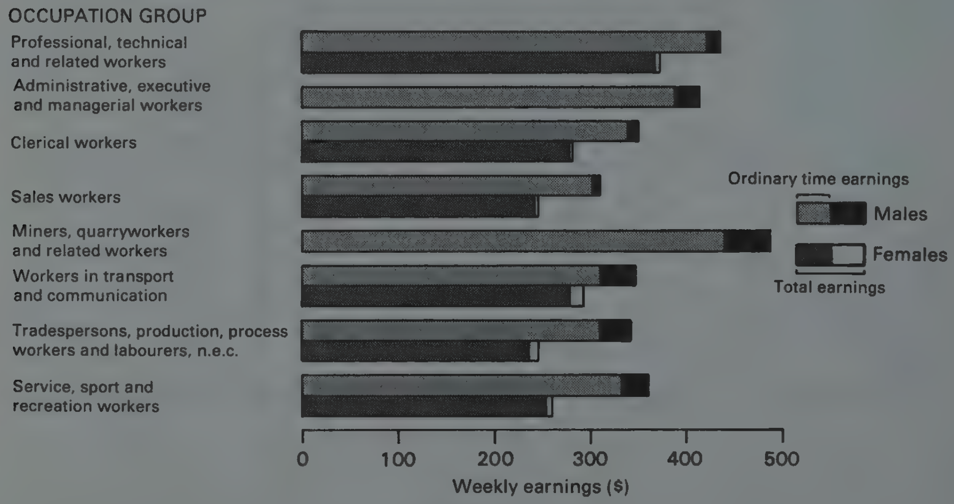


PLATE 25

DISTRIBUTION OF ALL EMPLOYEES BY WEEKLY EARNINGS, STATES, MAY 1983

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.(a)*
MALES							
	—per cent of employees—						
Weekly earnings ($)—							
Under 100	5.3	4.8	5.1	4.4	6.6	5.7	5.2
100 and under 120	1.1	1.2	3.8	4.7	4.5		1.3
120 " 140	1.7	1.4				5.9	1.6
140 " 160	1.3	1.6	3.4				1.6
160 " 180	1.5	1.6		5.3	8.7		1.5
180 " 200	1.9	1.7	4.2				1.8
200 " 220	2.1	3.1				9.1	2.6
220 " 240	3.6	4.5	4.7	4.6			4.1
240 " 260	6.7	7.0	7.2	7.3	6.4	6.4	6.8
260 " 280	7.8	7.4	9.2	8.7	6.9	7.4	7.8
280 " 300	6.9	6.4	8.7	9.1	6.9	6.8	7.2
300 " 320	8.5	7.7	6.8	8.7	7.7	8.7	7.9
320 " 340	7.2	6.2	6.3	6.8	7.3	6.8	6.7
340 " 360	6.6	6.1	5.9	6.7	4.4	6.8	6.2
360 " 380	4.9	4.8	5.0	8.5	4.7	5.8	4.8
380 " 400	4.3	4.1	3.8		5.6	5.6	4.3
400 " 450	9.1	9.3	7.5	9.9	9.9	9.5	9.0
450 " 500	6.7	7.3	6.1	5.2	6.6	9.9	6.7
500 " 550	4.6	4.3	4.3	4.3	4.7		4.5
550 " 600	3.0	2.9	2.7	6.0	9.3	5.8	2.8
600 and over	5.4	6.5	5.1				5.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	—number ('000)—						
Total employees	1,058.6	809.0	465.6	258.0	266.2	83.4	3,027.8
	—dollars—						
Median earnings	322.50	325.10	310.30	313.40	325.60	320.10	321.60
Mean earnings	343.00	347.50	331.00	331.40	347.30	331.60	342.60
FEMALES							
	—per cent of employees—						
Weekly earnings ($)—							
Under 60	7.8	6.1	7.4	11.6	15.6	12.1	7.4
60 and under 80	3.1	3.6	5.3				3.4
80 " 100	2.6	3.4		8.4	9.7	11.8	3.3
100 " 120	4.1	5.1	5.9				4.7
120 " 140	4.4	4.4	4.9	8.8	10.1	10.4	4.5
140 " 160	4.3	4.5	6.9				4.8
160 " 180	4.3	3.8	5.0	10.6	9.4	8.2	4.5
180 " 200	4.0	5.1	5.1			10.0	4.7
200 " 220	6.4	7.2	4.8	7.4	7.3		6.4
220 " 240	7.8	7.1	9.2	7.3	9.2	10.5	7.9
240 " 260	11.6	10.2	12.2	9.7	8.7	9.1	10.7
260 " 280	8.0	8.5	7.6	9.3	10.9	9.8	8.0
280 " 300	6.4	7.0	6.4	5.7			6.3
300 " 350	11.1	10.2	8.4	9.6	9.4	8.4	10.1
350 " 400	5.7	6.0	4.1	11.7	9.8	9.8	5.4
400 and over	8.5	8.0	6.9				7.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	—number ('000)—						
Total employees	690.0	577.3	280.6	178.4	178.3	54.2	2,019.3
	—dollars—						
Median earnings	242.00	239.40	233.30	229.40	213.60	210.20	236.00
Mean earnings	235.00	233.30	222.10	223.20	207.10	206.60	229.30

(*a*) Includes the Northern Territory and the Australian Capital Territory.

Total income

Information on the total income of individuals can come from a range of sources. Full scale income surveys provide detailed analyses of such information. The table and chart following focus on the incomes of full-year full-time workers.

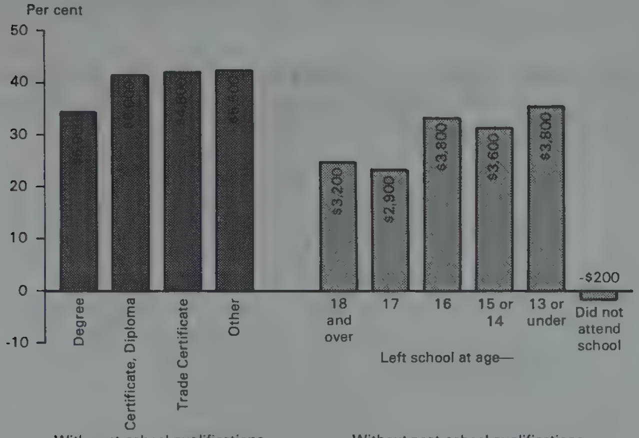
FULL-YEAR, FULL-TIME WORKERS: MEAN ANNUAL INCOME BY AGE AND EDUCATIONAL ATTAINMENT, AUSTRALIA, 1981-82

(Mean annual income ($))

	Age group (years)							
Educational attainment	*15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*Total (a)*
MALES								
With post-school qualifications—								
Degree	*	16,400	21,500	29,100	32,000	37,900	33,700	26,900
Certificate (non-trade) diploma	9,100	14,300	19,700	20,700	22,800	23,000	20,600	20,500
Trade certificate	9,400	14,600	15,900	17,000	16,700	16,300	16,700	16,200
Other (*b*)	11,700	16,600	17,600	17,500	21,700	21,900	24,900	18,500
Without post-school qualifications—								
Left school at age—								
18 or over	*	12,200	17,800	18,800	15,200	17,900	*	16,100
17	9,100	12,800	16,400	20,900	18,500	18,200	14,900	15,400
16	8,000	12,400	15,200	16,900	19,400	27,700	17,800	15,100
15 or 14	7,800	12,800	15,000	16,300	16,100	16,000	16,400	15,100
13 or under	*	*	12,700	14,800	15,000	15,400	13,700	14,500
Did not attend school	*	*	*	*	*	*	*	11,100
Total	**8,300**	**13,500**	**17,100**	**19,100**	**18,900**	**19,100**	**17,600**	**17,300**
FEMALES								
With post-school qualifications—								
Degree	*	15,000	18,200	24,000	22,900	32,200	*	20,000
Certificate (non-trade) diploma	8,100	12,400	15,800	16,100	15,100	17,100	13,900	14,500
Trade certificate	*	10,600	13,000	11,800	11,700	11,800	*	11,400
Other (*b*)	*	10,800	13,300	12,400	16,400	*	*	13,000
Without post-school qualifications—								
Left school at age—								
18 or over	*	11,900	14,100	14,900	13,900	13,600	*	12,900
17	8,200	12,000	13,300	15,400	12,800	14,600	*	11,300
16	9,300	10,200	12,500	13,300	11,700	11,600	11,400	11,300
15 or 14	7,000	11,200	12,800	12,500	12,300	11,300	10,800	11,500
13 or under	*	*	12,100	9,800	10,500	12,800	*	10,700
Did not attend school	*	*	*	*	*	*	*	11,300
Total	**8,100**	**11,800**	**14,600**	**14,500**	**13,200**	**13,700**	**13,000**	**13,100**

(*a*) Includes income contributed by 44,500 persons aged 65 and over. (*b*) Includes adult education and completion of secondary school qualifications.

FULL-YEAR, FULL-TIME WORKERS : DIFFERENCES IN MEAN ANNUAL INCOME BETWEEN MALES AND FEMALES(a) BY EDUCATIONAL ATTAINMENT, AUSTRALIA, 1981-1982



(a) For example, for persons holding degrees, males received $6,900 (34.5%) more than females while males who did not attend school received $200 (1.8%) less than females in the same category.

PLATE 26

NON-WAGE BENEFITS

The previous section concentrated on monetary renumeration for employment. In this section, attention is given to a range of benefits other than wages, salaries and supplements that may arise from employment. Benefits covered are employer provided concessions or allowances such as holiday costs, low interest finance, goods and services, housing, electricity, telephone, transport, medical, union dues, club fees, entertainment, shares, study leave, superannuation or children's education expenses.

Superannuation was the most regularly received benefit. The incidence of this benefit was considerably higher for males than for females in every occupation group.

ALL EMPLOYEES : TYPE OF BENEFIT RECEIVED, AUGUST 1983

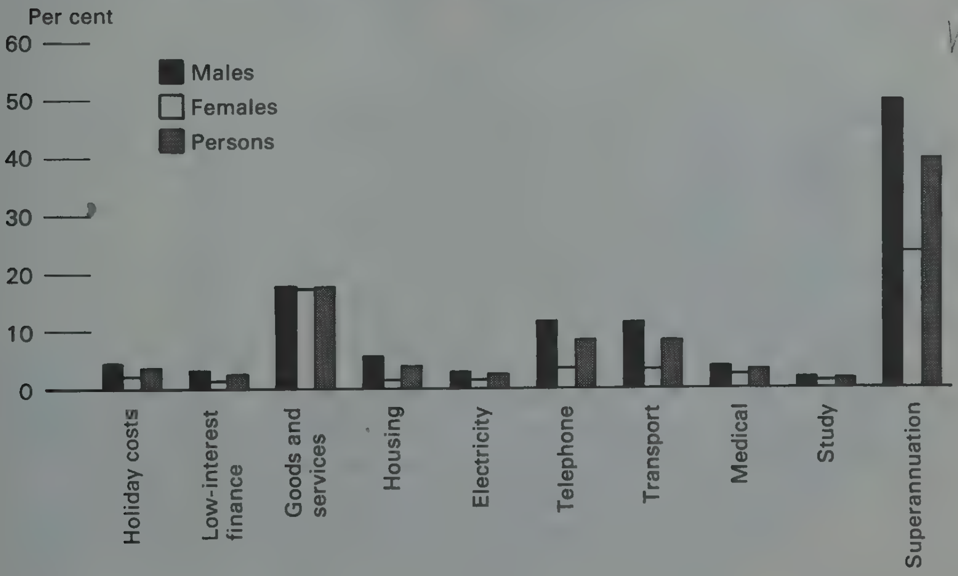


PLATE 27

The survey also showed that employees at the highest levels of earnings were more likely to receive non-wage benefits. The exceptions were goods and services and electricity charges. Children's education expenses were rarely provided. There was also an increased likelihood of receiving benefits as employees hours of work increased.

EMPLOYEES: TYPE OF BENEFIT RECEIVED AND WEEKLY EARNINGS IN MAIN JOB, AUGUST 1983

	Weekly earnings in main job—dollars								
	Under 160	*160 and under 220*	*220 and under 240*	*240 and under 280*	*280 and under 320*	*320 and under 380*	*380 and under 420*	*420 and over*	*Total*
Total employees ('000)	**947.2**	**677.9**	**419.4**	**802.9**	**642.1**	**604.9**	**339.9**	**753.5**	**5,187.9**
					Per cent				
Type of benefit									
Holiday costs	0.9	2.5	2.5	3.2	3.8	4.5	4.6	7.0	3.5
Low-interest finance	0.5	1.3	1.8	2.4	2.9	3.9	4.1	5.0	2.6
Goods and services	18.0	17.8	18.8	18.1	18.4	17.0	16.7	16.0	17.6
Housing	3.3	3.6	3.4	2.3	2.7	3.4	5.4	8.1	4.0
Electricity	3.2	3.0	1.5	1.7	1.6	1.9	1.9	3.4	2.4
Telephone	5.7	4.8	4.2	4.1	6.6	9.7	13.4	21.3	8.6
Transport	4.7	4.6	5.0	5.2	8.1	10.4	14.0	17.7	8.9
Medical	1.8	1.8	2.0	3.1	3.4	4.2	4.9	6.2	3.3
Union dues	1.0	1.3	1.6	1.3	1.8	2.4	2.2	5.1	2.1
Club fees	0.7	0.9	0.7	0.7	0.9	1.6	2.2	5.2	1.6
Entertainment allowance	1.1	1.6	1.8	1.9	3.6	6.0	7.4	13.5	4.4
Shares	1.2	1.3	0.8	0.9	1.7	1.9	2.6	2.8	1.6
Study leave	1.2	1.1	0.8	1.5	1.0	2.3	2.8	2.9	1.7
Superannuation	6.7	22.8	30.2	39.6	49.7	55.9	60.9	71.8	39.9
Children's education expenses	0.3	*	*	*	*	*	*	0.5	0.3

EMPLOYEES: TYPE OF BENEFIT RECEIVED AND HOURS WORKED IN MAIN JOB, AUGUST 1983

	Hours worked in main job						
	Less than 20	*20-29*	*30-34*	*35-39*	*40*	*41 and over*	*Total*
Total employees ('000)	**828.8**	**364.6**	**430.1**	**1,000.2**	**1,501.3**	**1,062.8**	**5,187.9**
				Per cent			
Type of benefit							
Holiday costs	2.4	3.0	3.7	3.4	3.4	4.8	3.5
Low-interest finance	1.1	2.7	4.3	3.2	2.0	3.2	2.6
Goods and services	16.1	16.2	16.0	14.1	17.4	23.6	17.6
Housing	2.4	2.8	2.4	2.5	3.5	8.2	4.0
Electricity	1.8	2.0	1.6	1.1	1.9	5.3	2.4
Telephone	6.5	5.0	5.6	5.2	6.6	18.5	8.6
Transport	5.1	4.1	4.6	4.5	7.6	18.9	8.4
Medical	1.8	2.4	4.3	3.6	2.8	4.9	3.3
Union dues	0.9	1.5	1.6	1.7	1.6	4.4	2.1
Club fees	0.8	*	1.0	0.8	1.3	4.0	1.6
Entertainment allowance	1.5	1.8	2.0	2.2	4.1	11.2	4.4
Shares	1.0	1.0	1.2	1.1	1.1	3.6	1.6
Study leave	1.3	1.5	2.1	2.6	1.1	2.0	1.7
Superannuation	20.5	27.8	45.0	55.4	36.9	46.6	39.9
Children's education expenses	*	*	*	*	*	0.9	0.3

NUMBER AND PROPORTION OF EMPLOYEES IN EACH OCCUPATION RECEIVING SUPERANNUATION BENEFITS, AUGUST 1983

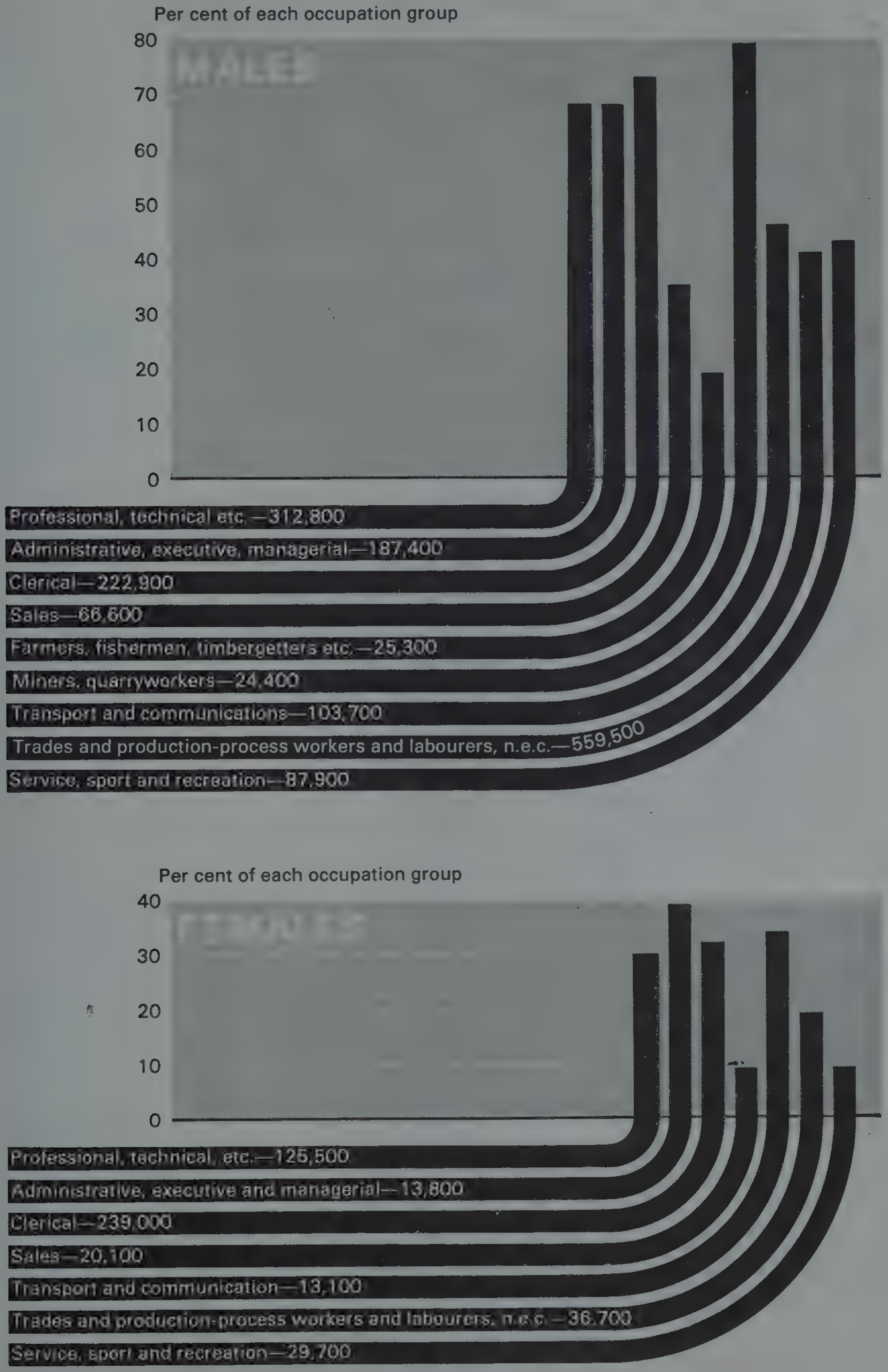


PLATE 28

HOURS OF WORK AND WORK PATTERNS

It is widely recognised that statistics of hours of work and patterns of work are essential for the study of economic activity, productivity, working conditions, living standards and the quality of life of working people. In this section a range of data has been brought together on work patterns and hours of work.

EMPLOYED PERSONS: AGGREGATE AND AVERAGE WEEKLY HOURS WORKED(*a*), MAY 1982 TO MAY 1984

('000)

		Females			
	Males	*Married*	*Not married*	*Total*	*Persons*
MAY 1982					
Aggregate weekly hours worked (million)	159.4	37.7	30.8	68.4	227.8
By full-time workers	155.7	28.3	27.8	56.2	211.8
By part-time workers	3.7	9.3	2.9	12.3	16.0
Average weekly hours worked	39.1	27.2	31.5	28.9	35.4
By full-time workers	40.5	36.9	36.2	36.5	39.3
By part-time workers	16.0	15.1	14.1	14.8	15.1
By wage and salary earners	37.4	26.9	31.3	28.9	34.2
By other than wage and salary earners(*b*)	47.4	28.3	34.4	29.1	41.9
Average weekly hours worked by persons who worked one hour or more in the survey week	41.7	29.6	33.7	31.3	37.9
By full-time workers	43.2	40.2	38.8	39.5	42.1
By part-time workers	17.1	16.4	14.9	16.0	16.3
MAY 1983					
Aggregate weekly hours worked (million)	150.5	37.8	29.6	67.4	217.9
By full-time workers	146.5	28.4	26.8	55.2	201.7
By part-time workers	3.9	9.4	2.8	12.2	16.2
Average weekly hours worked	38.3	26.9	31.5	28.7	34.7
By full-time workers	39.8	37.0	36.5	36.8	38.9
By part-time workers	16.1	14.7	13.6	14.5	14.8
By wage and salary earners	36.7	26.5	31.4	28.7	33.6
By other than wage and salary earners(*b*)	46.1	28.5	34.5	29.3	40.9
Average weekly hours worked by persons who worked one hour or more in the survey week	41.1	29.2	33.5	31.0	37.3
By full-time workers	42.7	40.3	38.7	39.5	41.8
By part-time workers	17.5	16.0	14.5	15.6	16.1
MAY 1984					
Aggregate weekly hours worked (million)	160.1	39.3	31.4	70.7	230.8
By full-time workers	156.2	29.2	28.0	57.2	213.4
By part-time workers	3.9	10.1	3.4	13.5	17.4
Average weekly hours worked	39.6	27.2	31.2	28.9	35.6
By full-time workers	41.2	37.6	36.6	37.1	40.0
By part-time workers	15.7	15.2	14.0	14.9	15.0
By wage and salary earners	37.8	26.7	31.1	28.7	34.2
By other than wage and salary earners(*b*)	48.4	29.6	32.4	30.0	42.9
Average weekly hours worked by persons who worked one hour or more in the survey week	42.3	29.7	33.2	31.2	38.1
By full-time workers	44.0	40.8	39.0	39.9	42.8
By part-time workers	16.8	16.6	14.9	16.1	16.3

(*a*) The figures refer to actual hours worked not hours paid for. (*b*) Comprises employers, self-employed persons and unpaid family helpers who worked 15 hours or more.

The table above sets out aggregate and average hours worked by employed persons who are either working full time or part time. The following table provides information on average hours worked by employed persons by the industry of their employment.

EMPLOYED PERSONS: AVERAGE WEEKLY HOURS WORKED(*a*), BY INDUSTRY, MAY 1984

('000)

Industry	*Males*	*Females*		*Persons*
		Married	*Total*	
Agriculture, forestry, fishing and hunting	50.7	25.8	27.5	45.1
Agriculture and services to agriculture	51.7	26.0	27.7	45.7
Forestry and logging, fishing and hunting	38.4	19.0	20.8	36.1
Mining	36.8	25.5	32.2	36.4
Manufacturing	38.5	32.1	32.7	37.0
Food, beverages and tobacco	37.6	30.8	31.6	35.9
Metal products	38.4	31.6	33.2	37.7
Other manufacturing	38.7	32.4	32.9	37.1
Electricity, gas and water	34.3	28.5	30.5	33.9
Construction	39.3	17.9	20.8	37.1
Wholesale and retail trade	41.2	29.4	28.6	35.7
Wholesale trade	40.3	29.5	31.6	37.8
Retail trade	41.8	29.4	27.9	34.8
Transport and storage	39.0	26.7	30.3	37.6
Communication	34.1	26.5	28.5	32.7
Finance, property and business services	39.6	26.6	29.8	34.9
Public administration and defence	35.6	30.2	32.1	34.4
Community services	36.9	24.9	27.7	31.1
Recreation, personal and other services	41.6	26.6	27.2	33.7
Total	**39.6**	**27.2**	**28.9**	**35.6**

(*a*) The estimates refer to actual hours worked, not hours paid for.

Statistics on overtime are produced from a survey conducted each quarter. This survey has recently undergone redevelopment in association with the development of the other employer surveys described earlier in this chapter. The redeveloped survey was introduced in the December quarter 1983 and, for that quarter, statistics were produced on both the old basis and the new to provide a link between them.

OVERTIME BY INDUSTRY, 1983 TO 1984

Industry	*February 1983*	*May 1983*	*August 1983*	*November 1983*		*February 1984*
				Old(a)	*New(b)*	
AVERAGE WEEKLY OVERTIME HOURS PER EMPLOYEE WORKING OVERTIME						
Mining	8.15	8.35	8.36	8.96	8.85	8.28
Manufacturing	7.42	7.48	7.71	7.99	7.82	7.98
Food, beverages and tobacco	7.69	6.66	7.04	7.71	6.92	7.31
Textiles, clothing and footwear	9.53	10.46	9.40	10.05	8.58	8.25
Paper, printing, etc.	7.21	6.49	7.06	7.43	6.92	5.87
Chemical, petroleum and coal products	7.81	7.37	6.95	6.92	7.61	7.83
Basic metal products	6.31	7.34	7.58	8.51	8.97	9.13
Fabricated metal products, other machinery, etc.	6.54	7.70	7.47	7.50	8.85	8.38
Transport equipment	8.33	7.33	8.22	8.62	8.05	7.71
Other manufacturing	7.29	7.46	8.53	7.87	7.03	8.52
Electricity, gas and water	7.67	7.85	7.21	7.40	6.89	6.99
Construction	7.74	8.15	8.17	7.61	7.78	7.56
Wholesale trade	6.43	6.25	5.79	6.20	5.85	6.40
Retail trade	4.02	3.93	3.86	3.99	3.91	3.91
Transport and storage, communication	6.75	7.39	7.09	7.17	7.04	6.84
Public administration, community services	6.77	6.82	6.69	7.38	5.61	5.59
Other	5.73	5.18	5.05	5.09	5.52	5.08
All industries	**6.78**	**6.85**	**6.80**	**7.06**	**6.66**	**6.70**

OVERTIME BY INDUSTRY, 1983 TO 1984

Industry	February 1983	May 1983	August 1983	November 1983 Old(a)	November 1983 New(b)	February 1984
PERCENTAGE OF EMPLOYEES IN THE SURVEY WORKING OVERTIME						
Mining	45.46	45.28	44.36	45.59	42.37	44.28
Manufacturing	21.67	23.70	25.49	29.90	28.09	27.07
Food, beverages and tobacco	33.97	30.82	34.79	38.24	35.37	33.63
Textiles, clothing and footwear	16.32	21.21	25.81	26.81	25.98	31.32
Paper, printing, etc.	19.48	20.65	22.17	25.08	22.56	19.51
Chemical, petroleum and coal products	17.11	23.36	20.63	25.87	26.31	18.29
Basic metal products	24.26	29.29	33.89	36.02	30.62	36.06
Fabricated metal products, other machinery, etc.	18.12	22.88	22.46	27.64	26.22	25.51
Transport equipment	11.29	14.30	16.27	22.59	24.47	24.28
Other manufacturing	25.77	24.15	24.96	32.10	28.33	25.97
Electricity, gas and water	22.00	21.99	22.12	21.68	21.70	21.11
Construction	24.94	23.42	22.97	24.41	20.04	18.04
Wholesale trade	15.22	16.98	14.89	17.67	18.33	14.68
Retail trade	16.10	17.43	18.21	19.25	14.49	14.73
Transport and storage, communication	29.26	27.60	27.93	30.72	26.91	26.06
Public administration, community services	7.24	7.72	7.60	7.18	7.70	6.91
Other	10.94	11.75	11.65	10.94	8.17	7.40
All industries	**16.82**	**17.36**	**17.59**	**19.02**	**16.34**	**15.74**

(*a*) Result from payroll tax based survey. (*b*) Result of sample survey of employers.

INDUSTRIAL DISPUTES

This section presents statistics of industrial disputes involving stoppages of work of ten man-days or more at the establishments where such stoppages occurred. Industrial disputes data is obtained from employers (private and government), trade unions, and from reports of government authorities.

An industrial dispute is a withdrawal from work by a group of employees or a refusal by an employer (or a number of employers) to permit some or all employees to work, each withdrawal or refusal being made to enforce a demand, resist a demand, or to express a grievance. Workers involved includes workers directly and indirectly involved in disputes, with the indirectly involved being only those thrown out of work at establishments where stoppages have occurred but who are not party to the disputes. Working days lost refer to man-days lost by workers directly or indirectly involved in disputes.

The annual figures contained in these tables relate to disputes *in progress*, whilst figures in the table on page 149 relate only to disputes which *ended* in the reference year.

INDUSTRIAL DISPUTES: AUSTRALIA, 1978 TO 1983

Year	Number of disputes: Commenced in year	Number of disputes: Total(a)	Workers involved ('000): Newly involved(b)	Workers involved ('000): Total(a)	Working days lost ('000)
1978	2,276	2,277	1,075.6	1,075.6	2,130.8
1979	2,040	2,042	1,861.6	1,862.9	3,964.4
1980	2,420	2,429	1,165.2	1,172.8	3,320.2
1981	2,887	2,915	1,229.1	1,251.8	4,192.2
1982	2,045	2,060	691.3	722.9	2,158.0
1983	1,779	1,787	453.0	470.5	1,641.4

(*a*) Refers to all disputes in progress during the year. (*b*) Comprises workers involved in disputes which commenced during the year and additional workers involved in disputes which continued from the previous year.

INDUSTRIAL DISPUTES: WORKING DAYS LOST BY INDUSTRY, 1978 TO 1983

('000)

Year	Mining		Manufacturing		Construction	Transport and storage; Communication	Other industries (a)	All industries
	Coal	Other	Metal products, machinery and equipment	Other				
1978	142.3	125.1	732.1	490.2	134.1	289.9	217.2	2,130.8
1979	232.6	283.6	929.7	749.0	359.7	550.1	859.7	3,964.4
1980	710.7	197.7	615.9	728.4	217.9	215.9	633.7	3,320.2
1981	318.3	307.4	1,221.6	654.1	441.9	465.5	783.3	4,192.2
1982	525.8	157.1	241.8	333.0	231.1	296.2	373.1	2,158.0
1983	122.8	194.7	155.8	120.7	337.2	215.4	494.8	1,641.4

(*a*) ASIC divisions A, D, F, I to L.

INDUSTRIAL DISPUTES: WORKING DAYS LOST BY STATE, 1978 TO 1983

('000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
1978	970.8	468.1	360.3	79.1	197.9	35.4	2,130.8
1979	1,369.9	1,486.1	467.9	186.5	348.1	59.8	3,964.4
1980	1,208.6	1,115.4	618.7	59.4	191.0	91.5	3,320.2
1981	1,918.6	1,235.5	465.8	158.8	244.0	64.3	4,192.2
1982	961.6	368.0	509.8	66.6	162.4	61.5	2,158.0
1983	801.2	257.7	135.3	87.4	270.6	67.8	1,641.4

(*a*) Includes the Northern Territory and the Australian Capital Territory.

The following table shows the number of working days lost per 1,000 employees in the years 1979 to 1983. For classification of causes *see* grouping on the next page. The figures to 1979 were based on estimates of employees as published in *Civilian Employees, Australia* (6213.0). As this series was suspended from April 1980, estimates from 1980 have been calculated by using estimates of employees from the labour force survey. For purposes of comparison, figures for 1979 have been shown on both bases.

INDUSTRIAL DISPUTES: WORKING DAYS LOST PER THOUSAND EMPLOYEES BY INDUSTRY, 1979 TO 1983

Year	Mining		Manufacturing		Construction	Transport and storage; Communication	Other industries (a)	All industries (a)
	Coal	Other	Metal products, machinery and equipment	Other				
1979(*b*) . . .	8,744	5,412	1,818	1,147	1,044	1,371	270	787
1979	8,021	5,649	1,872	1,116	1,115	1,356	270	788
1980	23,533	3,915	1,181	1,094	681	537	202	650
1981	10,011	5,141	2,285	989	1,423	1,104	239	800
1982	14,483	2,691	487	512	782	670	85	396
1983	3,240	3,399	352	186	1,269	485	42	249

(*a*) Excludes agriculture, etc. and private households employing staff. (*b*) Based on the civilian employees series.

INDUSTRIAL DISPUTES: WORKING DAYS LOST PER THOUSAND EMPLOYEES (*a*) BY STATE, 1979 TO 1983

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A*	*Tas.*	*Aust.(b)*
1979(*c*)	744	1,090	680	395	832	439	787
1979	743	1,082	686	402	842	436	788
1980	660	792	866	132	445	659	650
1981	1,028	865	624	320	552	456	800
1982	481	260	672	102	352	432	396
1983	288	163	178	114	581	471	249

(*a*) Excludes agriculture, etc. and private households employing staff. (*b*) Includes the Northern Territory and the Australian Capital Territory. (*c*) Based on the civilian employees series.

INDUSTRIAL DISPUTES : WORKING DAYS LOST PER THOUSAND EMPLOYEES BY INDUSTRY, 1982-1983

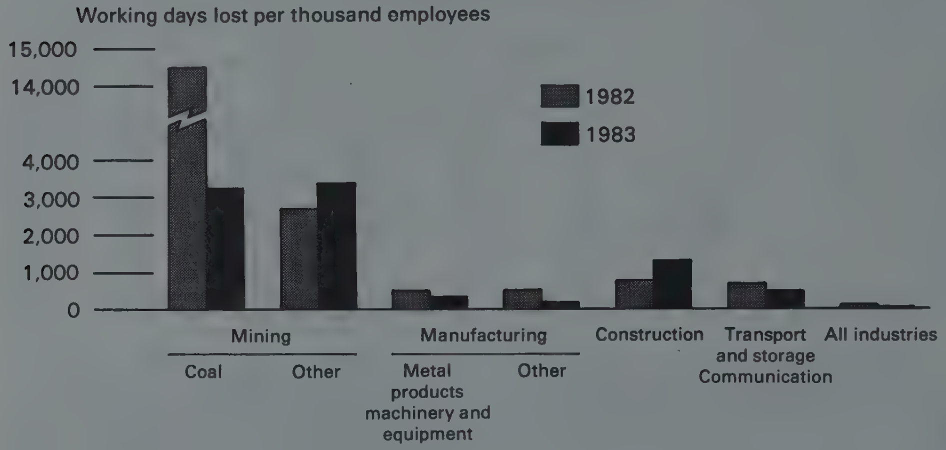


PLATE 29

INDUSTRIAL DISPUTES : WORKING DAYS LOST PER THOUSAND EMPLOYEES BY STATE, 1982 AND 1983

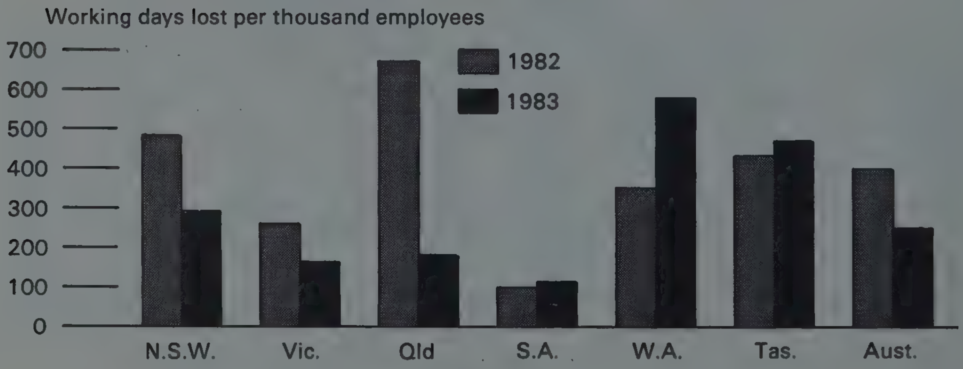


PLATE 30

The following table shows, for the years 1981 to 1983, working days lost in industrial disputes which ended in those years, classified according to duration, causes, and methods of settlement. Causes (i.e. the direct causes of stoppages of work) are grouped as follows:

- Wages—claims involving general principles relating to wages, including combined claims relating to wages, hours or conditions of work;
- Hours of work—claims involving general principles relating to hours of work;
- Leave, pensions, compensation provisions, etc.—claims involving general principles relating to these provisions;
- Managerial policy—disputes concerning managerial policy of employers including computation of wages, hours, leave, etc. in individual cases; docking pay, etc.; dismissals, etc.; principles of promotion, etc.; employment of particular persons and personal disagreements; production limitations, etc.;
- Physical working conditions—disputes concerning physical working conditions including safety issues; protective clothing and equipment, etc.; amenities; shortage of, or condition of, equipment or material; new production methods, etc.; arduous physical tasks, etc.;
- Trade unionism—disputes concerning employment of non-unionists; inter-union and intra-union disputes; sympathy stoppages; recognition of union activities, etc.;
- Other—disputes concerning protests directed against persons or situations other than those dealing with employer-employee relationships; non-award public holidays; accidents and funerals; cases where no reasons given for the stoppage; etc.

INDUSTRIAL DISPUTES: DURATION, CAUSES AND METHODS OF SETTLEMENT, WORKING DAYS LOST, 1981 TO 1983(*a*)

('000)

	1981	*1982*	*1983*
DURATION			
Up to 1 day	293.0	187.1	153.7
Over 1 to 2 days	295.9	290.8	138.8
Over 2 to 3 days	530.8	323.0	228.3
Over 3 to less than 5 days	674.7		
5 to less than 10 days	1,131.5	515.1	303.4
10 to less than 20 days	926.3	629.0	242.5
20 to less than 40 days	438.5	247.0	652.2
40 days and over	136.7		
Total	**4,427.4**	**2,219.0**	**1,691.9**
CAUSES (*b*)			
Wages	2,066.9	1,081.4	207.2
Hours of work	1,099.1	455.2	84.6
Leave, pensions, compensation provisions, etc.	278.3	(*c*)	(*c*)
Managerial policy	687.8	369.1	735.1
Physical working conditions	176.5	155.6	532.2
Trade unionism	87.4	76.7	55.3
Other	31.3	81.0(*d*)	77.6
Total	**4,427.4**	**2,219.0**	**1,691.9**
METHODS OF SETTLEMENT (*e*)			
Negotiation	701.5	412.7	351.0
Mediation	9.5	(*f*)	(*f*)
State legislation—			
Under State conciliation, etc., legislation	323.8	129.2	284.7
Intervention, etc., of State Government officials	2.4		
Federal and joint Federal State legislation (*g*)	1,343.7	691.7	417.2
Filling the places of workers on strike or locked out	0.9	(*f*)	(*f*)
Closing down the establishment permanently	9.8	(*f*)	(*f*)
Resumption without negotiation	2,003.2	976.9	629.6
Other methods	32.7	8.6 (*h*)	9.4(*h*)
Total	**4,427.4**	**2,219.0**	**1,691.9**

(*a*) Refers to disputes which ended in the year. (*b*) For nature of classification, *see* text above. (*c*) Included in 'Other'. (*d*) Includes 'Leave, pensions, compensation provisions, etc'. (*e*) Method directly responsible for ending the stoppage of work. (*f*) Included in 'Other methods'. (*g*) Includes Industrial Tribunals under (i) Conciliation and Arbitration Act, (ii) Coal Industry Acts, (iii) Stevedoring Act, (iv) Other Acts, and intervention, etc. of Federal government officials. (*h*) Includes 'Mediation', 'Filling the places of workers on strike or locked out' and 'Closing down the establishment permanently'.

TRADE UNIONS

For the purpose of the following statistics a trade union is defined as an organisation, consisting predominantly of employees, whose principal activities include the negotiation of rates of pay and conditions of employment for its members. Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organisations.

TRADE UNIONS: NUMBER, MEMBERSHIP AND PROPORTION OF TOTAL EMPLOYEES, 1979-1983

End of December	*Number of separate unions (a)*	*Number of members ('000)*			*Proportion of total employees (per cent)*		
		Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
1979	328	1,971.4	902.2	2,873.6	61	47	56
1980	325	2,009.5	946.3	2,955.9	61	47	56
1981	324	2,029.4	964.7	2,994.1	60	48	56
1982	322	2,024.4	988.0	3,012.4	62	49	57
1983	319	2,007.2	978.0	2,985.2	61	46	55

(*a*) Without inter-State duplication.

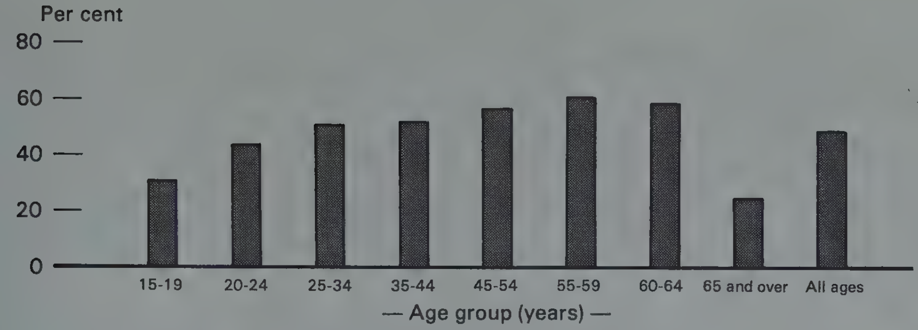
In the table above the approximate percentages of wages and salary earners in employment who were members of trade unions are shown. The proportions of total employees shown have been calculated by using estimates of employees from the labour force survey. The percentages shown should be regarded as giving only a broad indication of the extent of union membership among wage and salary earners because they are based on estimates of *employed* wage and salary earners which are subject to revision and because the degree of unemployment of reported union members will affect the percentages for a particular year and comparison over time.

TRADE UNIONS: CLASSIFICATION ACCORDING TO NUMBER OF MEMBERS, 1983

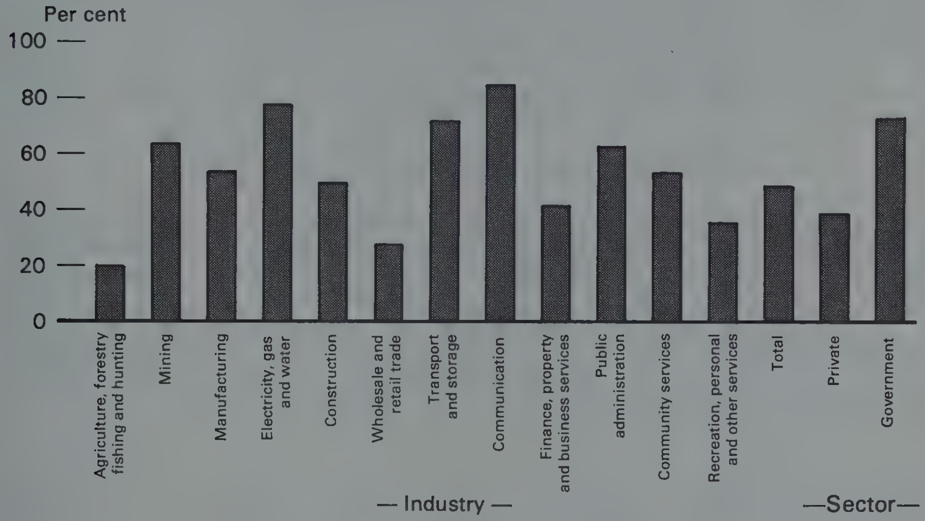
Number of members	*Separate unions*		*Members*	
	Number	*Proportion of total (per cent)*	*Number ('000)*	*Proportion of total (percent)*
Under 100	41	12.9	2.0	0.1
100 and under 250	39	12.2	6.0	0.2
250 ,, ,, 500	25	7.8	8.9	0.3
500 ,, ,, 1,000	47	14.7	33.9	1.1
1,000 ,, ,, 2,000	41	12.9	57.7	1.9
2,000 ,, ,, 5,000	41	12.9	132.0	4.4
5,000 ,, ,, 10,000	21	6.6	149.3	5.0
10,000 ,, ,, 20,000	22	6.9	328.1	11.0
20,000 ,, ,, 30,000	13	4.1	315.2	10.6
30,000 ,, ,, 40,000	7	2.2	254.7	8.5
40,000 ,, ,, 50,000	8	2.5	363.2	12.2
50,000 ,, ,, 80,000	5	1.6	320.9	10.7
80,000 and over	9	2.8	1,013.4	33.9
Total	**319**	**100.0**	**2,985.2**	**100.0**

In addition, a special household supplementary survey was conducted from March to May 1982 to provide information on the characteristics of trade union members such as their age, industry, and occupation. These characteristics are summarised on the following page.

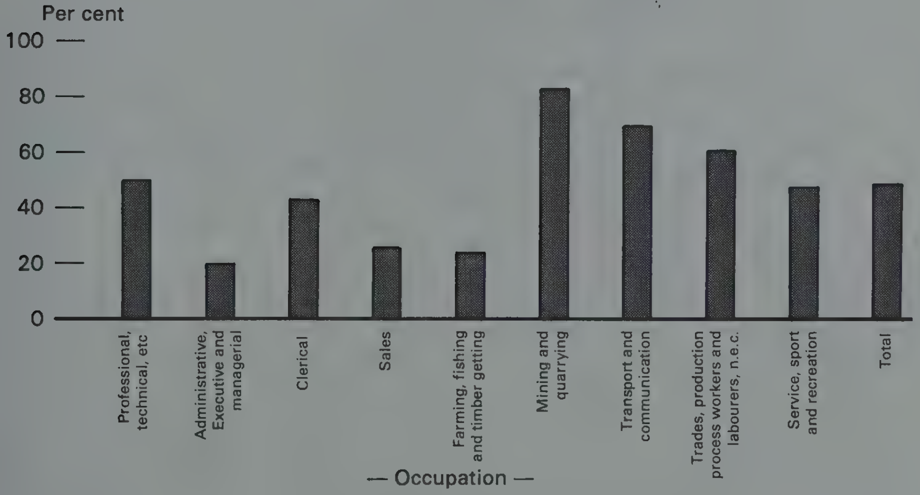
TRADE UNION MEMBERSHIP : AGE, MARCH TO MAY 1982



TRADE UNION MEMBERSHIP : INDUSTRY AND SECTOR, MARCH TO MAY 1982



TRADE UNION MEMBERSHIP : OCCUPATION, MARCH TO MAY 1982



PLATES 31, 32 and 33

INDUSTRIAL ACCIDENTS

The only regular statistics concerning occupational health and safety collected by the ABS are the annual statistics of industrial accidents and disease which are published by most State Offices. In recent years some improvements have been made to these statistics through the progressive adoption of standardised classifications and data items. However, in producing these statistics, the ABS has to rely upon administrative by-product data generated under the differing provisions of worker's compensation legislation in each State. Because of these legislative differences and coverage and reporting deficiencies of the by-product source data, and because the Commonwealth employee sector remains uncollected, the statistics do not provide an adequate picture of the nation's occupational safety and health record. Thus, users of the statistics are limited to some State-specific data on a variety of items such as type and duration of disability, industry of employment, age, sex, agency and type of accident, and nature and bodily location of injury.

The collection of statistics of occupational health and safety may undergo significant change in the future, following the Federal Government's establishment of a National Occupational Health and Safety Commission. It is intended that this body will have responsibilities for the facilitation and co-ordination of action in collaboration with State Governments, aimed at improved working conditions and reducing the incidence of death, injury and illness in the workplace. To assist in this process, a National Occupational Health and Safety Office (NOHSO) and a National Institute of Occupational Health and Safety (NIOHS) are to be created. The objectives of NIOHS include plans to develop and implement improved systems for the collection, recording, evaluation and dissemination of statistics and other information.

PERSONS RETIRED FROM FULL-TIME WORK

In association with the September 1983 labour force survey, persons aged 45 years and over who had retired from full-time work were asked about their age at retirement, their retirement scheme coverage and type of payments derived from these schemes, and their housing arrangements and main source of income after retirement. A person who had retired from full-time work was a person who had had a full-time job at some time and who had ceased full-time labour force activity i.e. was not working full-time or was not looking for full-time work and did not intend to look for or take up full-time work at any time in the future. A retirement scheme included superannuation schemes, life assurance policies or similar schemes that provided a financial benefit when the person left full-time work. The survey also identified those persons who retired early i.e. for males, before age 65, and for females, before age 60.

The survey indicated that the age at which males and females retired from full-time work differed considerably. The majority of females had done so at age less than 45 years, whereas the majority of males had not until age 60-69.

PERSONS AGED 45 YEARS AND OVER: WHETHER RETIRED FROM FULL-TIME WORK, AGE AT RETIREMENT AND AGE AT SEPTEMBER 1983

('000)

	Age at September 1983 (years)						
	45-49	*50-54*	*55-59*	*60-64*	*65-69*	*70 and over*	*Total*
			MALES				
Had never worked full-time	*	*	*	*	*	3.2	8.3
Had not retired from full-time work (*a*)	372.0	364.4	304.2	151.8	32.8	16.2	1,241.3
Institutionalised (*b*)	3.6	4.8	8.0	12.4	8.0	50.2	87.1
Had retired from full-time work	13.2	21.8	57.4	171.7	206.4	321.6	792.2
Age at retirement (years)—							
Less than 45	9.4	6.6	5.3	*	*	*	28.6
45-49	3.8	6.8	6.7	*	*	*	22.5
50-54	..	8.4	19.3	11.5	4.3	7.1	50.5
55-59	..	..	26.1	57.2	20.3	17.0	120.6
60-64	..	..	..	98.6	101.2	81.2	281.0
65-69	..	..	..	..	76.9	175.7	252.6
70 years and over	..	..	..	..	..	36.3	36.3
Total	*390.0*	*391.4*	*370.4*	*337.3*	*248.5*	*391.1*	*2,128.8*

PERSONS AGED 45 YEARS AND OVER: WHETHER RETIRED FROM FULL-TIME WORK, AGE AT RETIREMENT AND AGE AT SEPTEMBER 1983—*continued*

('000)

	Age at September 1983 (years)						
	45-49	*50-54*	*55-59*	*60-64*	*65-69*	*70 and over*	*Total*
			FEMALES				
Had never worked full-time	32.6	41.5	51.4	69.0	71.4	166.7	432.6
Had not retired from full-time work (*a*)	171.4	126.9	81.5	28.3	5.4	5.4	418.9
Institutionalised (*b*)	*	*	3.5	6.2	9.2	112.9	135.7
Had retired from full-time work	176.0	189.7	234.3	247.8	206.4	309.0	1,363.3
Age at retirement (years)—							
Less than 45	160.0	138.4	141.7	127.3	106.9	169.4	843.6
45-49	16.0	29.7	26.2	13.6	9.0	6.9	101.4
50-54	..	21.6	44.1	38.5	15.7	21.8	141.8
55-59	..	..	22.4	42.1	27.4	22.2	114.1
60-64	..	..	..	26.2	39.1	53.0	118.4
65-69	..	..	..	..	8.2	26.1	34.4
70 years and over	..	..	..	..	..	9.6	9.6
Total	*382.0*	*359.8*	*370.8*	*351.4*	*292.4*	*594.1*	*2,350.5*
			PERSONS				
Had never worked full-time	33.9	42.0	52.3	70.3	72.6	169.9	441.0
Had not retired from full-time work (*a*)	543.3	491.2	385.7	180.1	38.2	21.6	1,660.2
Institutionalised (*b*)	5.6	6.6	11.5	18.7	17.3	163.1	222.8
Had retired from full-time work	189.2	211.5	291.8	419.6	412.8	630.6	2,155.4
Age at retirement (years)—							
Less than 45	169.4	144.9	147.0	130.1	108.8	171.9	872.2
45-49	19.8	36.6	32.9	15.4	10.8	8.5	123.9
50-54	..	30.0	63.4	50.0	20.0	28.9	192.3
55-59	..	..	48.5	99.3	47.8	39.2	234.8
60-64	..	..	..	124.8	140.4	134.2	399.4
65-69	..	..	..	..	85.1	201.9	287.0
70 years and over	..	..	..	..	..	45.9	45.9
Total	**772.1**	**751.3**	**741.2**	**688.7**	**540.9**	**985.2**	**4,479.3**

(*a*) Comprises persons working full-time at the time of the survey or intending to work full-time in the future. (*b*) Includes persons permanently unable to work.

The majority of both males and females who had retired at age 45 or more had Invalid, Age, or other pensions as their main source of income at September 1983. Males were also more likely to have superannuation, war pensions and investments as a main source of income than were females.

Of interest are the reasons for early retirement, that is, for males before age 65 years and for females before age 60 years. The following chart sets out the various reasons why persons retire early. Personal reasons, particularly own ill health or injury, is by far the prime reason for early retirement.

PERSONS WHO RETIRED FROM FULL-TIME WORK AT AGE 45 YEARS OR MORE : MAIN SOURCE OF INCOME AT SEPTEMBER 1983

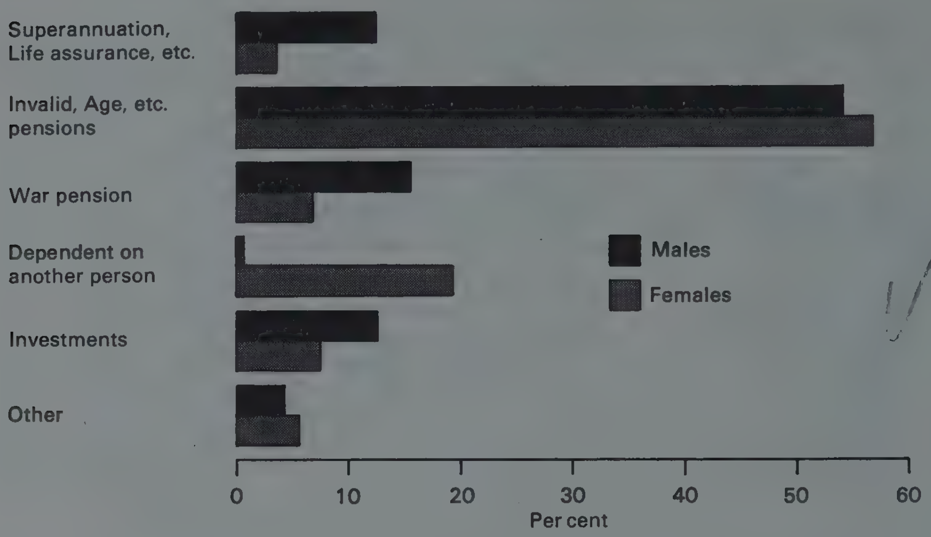


PLATE 34

PERSONS WHO RETIRED FROM FULL-TIME WORK EARLY : REASON FOR RETIRING EARLY, SEPTEMBER 1983

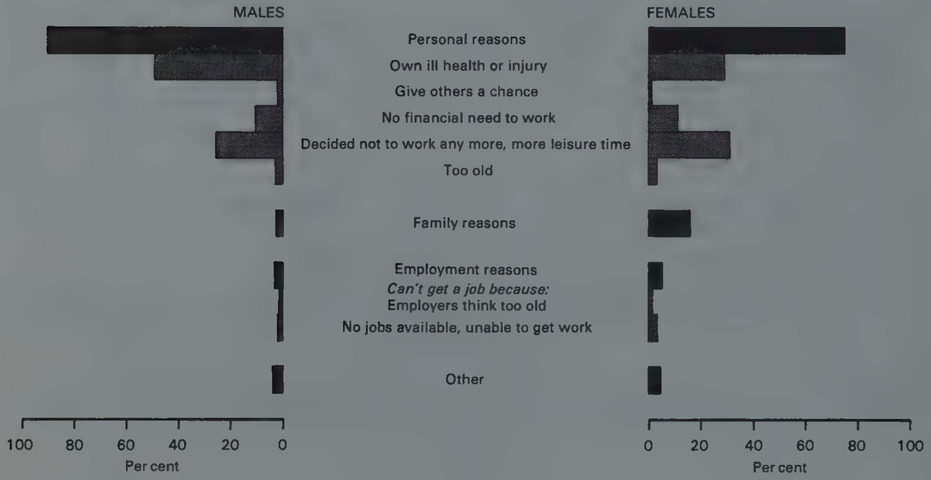


PLATE 35

EMPLOYMENT AND TRAINING PROGRAMS

The Commonwealth Government has a range of programs designed to promote work experience and training. The principal aims of these programs are to maintain an adequate supply of trained persons to meet the needs of industry and to assist disadvantaged groups in the labour market. The main Commonwealth programs in operation as at October 1984 and their terms and conditions at that date are described below.

Trade Training

Commonwealth Rebate for Apprentice Full-time Training (CRAFT)

Assistance under CRAFT takes four forms. *Technical Education Rebates* are payable to employers for releasing their apprentices to attend, or study by correspondence, the technical education component of an approved basic trade course. From 1 January 1984, these rebates range from $21.90 to $42.80 per day.

Rebates are also payable to employers who release their apprentices to attend approved full-time *Off-the-Job* training courses at their own or other industry training centres in the first year of apprenticeship and range from $21.90 to $31.30 per day.

Pre-vocational Graduate Employment Rebates of $750 are payable to employers who engage an apprentice, on or after 1 January 1984, who has completed an approved trade based pre-employment course which results in exemption from at least one stage of technical education and a reduction of at least 6 months in the normal period of apprenticeship. Eligible apprentices engaged prior to 1 January 1984 can attract for their employer a higher rate of technical education rebate of between $30.30 and $43.80 per day.

A Living Away From Home Allowance of $34.40 for first year apprentices and $14.60 for apprentices in their second year of apprenticeship are also provided.

Special apprentice training schemes

Five types of support are available for certain categories of apprentices.

Under the *Group Apprenticeship Support Program* joint Commonwealth/State financial support is provided to employer and industry associations for costs associated with the management and administration of new or expanded group apprenticeship schemes.

The *Special Trade Training Program* is directed at developing new approaches to complement traditional apprentice training. It includes a range of schemes through which innovations can be tested and/or introduced. The major components of this program are special training schemes for mature age apprentices and the provision of Commonwealth assistance to State and Territory governments to provide additional trade based pre-employment course places, with particular emphasis on expanding places for young women.

The *Special Assistance Program* is aimed at reducing the incidence of apprentice retrenchments and wastage. Wage subsidies may be payable to existing employers of indentured apprentices to retain the apprentice in employment and training or to new employers who engage and indenture out of trade apprentices who were retrenched due to the economic circumstances of their previous employer. In addition, apprentices who are out of trade may be eligible for a training allowance to enable completion of the basic trade course and/or to undertake an approved course of off-the-job training.

Under the *Group One Year Apprentice Scheme* training is provided to first year apprentices utilising spare training capacity within Commonwealth and State government establishments. Apprentices are indentured to private employers, but are trained in government establishments for their first year before returning to their employer for the remainder of their apprenticeship.

The *Pre-Apprenticeship Allowance* of $20 per week is available to students attending approved trade based pre-employment courses at TAFE institutions when assistance under other Commonwealth education assistance schemes is not available at a higher rate.

Skills Training

Skills in demand

This program promotes the training of persons in particular skills which are in demand by industry. If offers a range of assistance including the costs of establishing and running training courses and providing allowances for unemployed trainees. The development and management of this training is on a joint industry and government basis.

Labour adjustment training arrangements

Reduntant workers in designated instances of large scale retrenchments are eligible for flexible packages of special training assistance. The arrangements are developed in consultation with the retrenching firm(s), relevant unions and education authorities and are implemented in educational institutions and available industry training facilities. Assistance is provided through the payment of allowances to eligible trainees, negotiating special courses not locally available and meeting the costs of development and provision of such courses.

General training assistance

Under General Training Assistance subsidies can be provided to employers who employ and train an eligible unemployed person when no suitably trained applicants can be referred to the position by the Commonwealth Employment Service. The weekly rates for on-the-job training are $63.70 per week for juniors and $86.90 per week for adults.

A training allowance is also available for eligible unemployed people who undertake formal training in an occupation which is in demand. Trainees receive an income-tested living allowance which comprises a basic component equivalent to their entitlement to unemployment benefit, and a training component. The training component for adults is $46.35 per week and for trainees under 18, $23.20 per week.

Industry training services

In addition to specific schemes directed at the training of individuals, the Government also provides aid to assist industry to develop and improve its own training programs.

Youth Training

The *Transition Allowance* equal to the level of unemployment benefit plus $6.00 per week, is available to eligible unemployed young persons to enable them to attend full-time vocationally oriented training courses conducted mainly in Technical and Further Education (TAFE) Colleges. Most Transition Allowance-eligible courses are funded under the Participation and Equity Program (PEP). For further details refer to Chapter 12, Education.

Experimental training projects

This program allows innovative short-term training arrangements to be funded to meet identified training and employment-related needs of unemployed young people.

Preference is given to those who are most disadvantaged. Financial assistance is available to appropriate training institutions, employer and industry associations and established community groups to conduct training arrangements.

Trainees are eligible for the Transition Allowance and related benefits.

Special Youth Employment Training Program (SYETP)

A major disadvantage faced by young people competing in the labour market is a lack of appropriate work skills and previous work experience. The longer young people remain unemployed, the more difficult it becomes for them to secure employment.

To offset these disadvantages, assistance is provided in the form of wage subsidies.

Two forms of SYETP subsidy are available:

(i) *Standard SYETP* is payable to employers recruiting 15 to 24 year olds who do not have recent relevant work experience, who are registered with the Commonwealth Employment Service (CES), and who have been unemployed and away from full-time education for at least four of the last 12 months.

The level of subsidy varies according to the age of the employee: for 15–17 year olds, the subsidy is $50 a week, for 18–19 year olds it is $75.00 a week and for 20–24 year olds it is $100.00 a week. The subsidies are payable for up to 17 weeks.

(ii) *Extended SYETP* is payable to employers recruiting 18–24 year olds who are registered with the Commonwealth Employment Service and who have been unemployed and away from full-time education for at least eight of the last 12 months.

Under Extended SYETP the level of subsidy also varies according to the age of the employee: for 18–19 year olds, the subsidy is $75.00 a week for the first 17 weeks and $50.00 a week for a further 17 weeks; for 20–24 year olds, the subsidy rate is $100.00 a week for the first 17 weeks followed by $75.00 a week for a further 17 weeks.

Employment Creation

Community Employment Program (CEP)

This program was established by the *Community Employment Act 1983* and is designed to create additional employment opportunities for unemployed persons through the funding of labour intensive projects of social and economic benefit to the community. The CEP is directed at those unemployed persons who are particularly disadvantaged in the labour market and who are consequently least likely to benefit from improved economic activity. These include the longer term unemployed, Aboriginals, migrants with English language difficulties and the disabled.

Eligible projects are those which provide additional employment to that which otherwise would have occurred; are labour intensive; provide services of public and community value and provide worthwhile work experience and/or training training for participants.

The Commonwealth contribution is on the basis of meeting 70 per cent to 80 per cent of overall costs. Sponsors are required to contribute the remainder with State/Territory governments being expected to contribute a minimum of 30 per cent of total project costs while local government and community groups contribute 20 per cent; this requirement can be waived for community organisations in extenuating circumstances.

Assistance for Long-term Unemployed Adults

Adult Wage Subsidy Scheme (AWSS)

In order to facilitate the re-integration of long-term unemployed adults into the workforce, wage subsidies may be paid to employers who provide eligible job-seekers with stable employment.

Two levels of subsidy are available:

(i) *Standard AWSS:* A subsidy of $100.00 a week for 17 weeks followed by $75.00 a week for a further 17 weeks is paid in respect of job-seekers aged 25 or over who have been unemployed, registered with the CES and away from full-time education for at least eight months in the last 12.

(ii) *Extended AWSS:* A subsidy of $125.00 per week for 52 weeks is payable in respect of job-seekers aged 45 or older who have been continuously unemployed, registered with the CES, and away from full-time education for the previous 12 months.

Special Training

Some groups in the community, because of background and circumstances beyond their control, face additional disadvantages in gaining and maintaining employment. In recognition of these disadvantages special programs, allowances and subsidies are available.

Two such groups are Aboriginals and the disabled. Assistance provided includes the provision of *public sector training* positions, *training allowances* and *employer subsidies*. Special training projects for Aboriginals and work preparation courses for disabled persons are also supported.

Employment Services

A number of programs are funded to support the Government's manpower and training policies and to offset the effects of certain inefficiencies in the labour market.

The two main types of program are mobility assistance programs and information programs. Mobility assistance includes *Relocation Assistance Scheme (RAS)* which assists the relocation of unemployed people or people who have received notification of impending redundancy and who are unable to obtain within a reasonable time continuing employment in the area in which they live, and the *Fares Assistance Scheme (FAS)* which assists unemployed people to attend job interviews with prospective employers.

The information programs include the provision of *Occupation Information* and a *National Promotional Campaign* to ensure a widespread knowledge of the assistance provided under the Government's programs.

Youth Support

Assistance to unemployed young persons is provided through labour market support programs which encourage the community to respond to their needs.

Community-based Youth Programs

Community Youth Support Scheme (CYSS): The objective of CYSS is to encourage communities to assist local unemployed young people to develop their capacity for obtaining and retaining employment, and also to become more self-reliant during periods of unemployment.

Volunteer Youth Program which provides grants to community organisations for the purpose of facilitating the placement of unemployed young people in voluntary community service activities with the aim of developing and enhancing their work-related skills.

Community Youth Special Projects Program which assists community organisations to develop individual projects aimed at offering the young unemployed full-time structured training and employment-related training activities.

Trade Recognition

The *Tradesmen's Rights Regulation Act 1946* provides a national tripartite system under which persons who have not completed an Australian apprenticeship may achieve recognition as tradespersons in specified classifications in the metal, electrical, footwear trades.

Trade Union Training Authority

The *Trade Union Training Authority (TUTA)* was established in 1975 for the provision, co-ordination, promotion and evaluation of trade union training in Australia. Training programs are conducted at TUTA's centres in each capital city, in country locations throughout Australia and at the TUTA's national residential college at Albury/Wodonga, the Clyde Cameron College.

DEPARTMENT OF EMPLOYMENT AND INDUSTRIAL RELATIONS
LABOUR FORCE PROGRAMS AND SERVICES APPROVALS 1981-82 TO 1984-85

Type of program	*1981-82*	*1982-83*	*1983-84*	*1984-85 (est.)*
Trade Training Program—				
CRAFT	99,000	100,577	81,986	87,000
Special Apprentice Training	3,040	8,278	8,340	5,051
Skills Training Program—				
General Training Assistance—				
Formal	1,086	1,656	1,521	2,105
On-the-job	7,320	3,526	1,832	2,240
Skills in Demand	1,213	1,615	426	460
Labour Adjustment Training	—	—	3,701	3,800
Youth Training Program—				
Transition Allowance	11,456	14,069	15,204	16,200
Experimental Training Projects	—	150	369	600
Pre-apprenticeship Allowance	1,596	3,785	6,073	7,460
Work Experience—				
Standard SYETP—				
Private	37,525	45,129	50,718	51,085
Commonwealth	3,589	4,233	4,621	4,800
State SYETP	—	567	789	—
Extended SYETP	10,582	16,337	31,454	31,537
Assistance for Long-Term Unemployed Adult Wage Subsidy Scheme—				
Standard	—	1,360	13,074	17,258
Extended	—	282	2,279	3,871
Special training Program—				
Aboriginals	4,628	5,697	9,257	10,502
Disabled	3,776	3,206	4,817	4,756
Special Needs Clients	915	1,012	2,097	2,338
Youth Affairs—				
Community Youth Special Projects	n.a.	n.a.	956	1,300
Employment Services—				
Relocation Assistance Scheme	1,513	1,985	2,790	3,920
Total (excluding Job Creation)	*187,239*	*213,464*	*242,304*	*256,283*
Job Creation—				
Wage Pause Program	—	3,532	17,129	—
Community Employment Program	—	—	28,400	42,000
Total Job Creation	—	*3,532*	*45,529*	*42,000*
Total All Programs	**187,239**	**216,996**	**287,833**	**298,283**

DEPARTMENT OF EMPLOYMENT AND INDUSTRIAL RELATIONS LABOUR FORCE PROGRAMS AND SERVICES EXPENDITURE 1979-1980 TO 1984-1985

Type of program	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1983-84*	*1984-85 (est.)*
			$'000			
Trade Training Program—						
CRAFT	42,702	64,451	78,749	84,938	86,603	102,913
Special Apprentice Training	3,100	3,600	3,360	10,456	20,049	19,325
Skills Training Program—						
General Training Assistance	9,700	10,732	8,273	5,998	5,588	7,335
Skills in Demand	500	478	(*a*)2,482	(*a*)3,606	2,068	3,009
Labour Adjustment Training Arrangements	—	—	(*b*)	(*b*)	11,223	16,176
Industry Training Services	2,006	3,000	4,500	5,222	6,943	9,500
Youth Training Program—						
Transitional Allowance	3,000	4,703	8,423	11,365	14,564	16,870
Experimental Training Projects	—	—	—	948	1,034	1,885
Pre-apprenticeship Allowance	1,150	1,587	1,146	1,941	3,274	4,989
Work Experience	24,158	41,255	53,702	63,625	120,192	108,901
Assistance for Long-Term Unemployed—						
Adult Wage Subsidy Scheme	—	—	—	375	23,200	40,900
Special Training Program—						
Training for Aboriginals	11,000	13,928	19,044	24,610	41,040	50,923
Training for the Disabled	1,000	2,719	6,471	6,312	9,787	10,124
Special Needs Clients	—	731	1,007	751	1,938	2,622
Employment Services—						
Relocation Assistance Scheme	1,050	1,265	1,599	2,160	3,497	4,900
Fares Assistance Scheme	220	303	264	362	416	487
Occupational Information	561	1,620	1,211	1,627	2,402	2,883
Former Regular Service Members' Vocational Training Scheme	220	287	196	74	31	15
National Promotional Campaign	—	840	124	962	(*c*)2,477	2,200
Employment Strategies	297	428	290	512	(*d*)	(*d*)
Community-Based Youth Programs—						
Community Youth Support Scheme	11,600	13,800	14,200	17,880	21,348	26,239
Volunteer Youth Program	109	157	151	178	392	530
Community Youth Special Projects	—	206	586	1,499	2,794	3,231
Other—						
Industrial Democracy Grants	—	—	—	—	17	(*e*)
Total Labour Force Programs and Services (excluding Job Creation)	*112,373*	*166,090*	*205,778*	*245,401*	*380,877*	*435,957*
Job Creation—						
Wage Pause Program (*f*)	—	—	—	98,900	101,100	—
Community Employment Program	—	—	—	—	285,422	410,000
Total Expenditure on Government Labour Force Programs and Services	**112,373**	**166,090**	**205,778**	**344,301**	**767,399**	**845,957**

(*a*) Includes LATA expenditure. (*b*) Expenditure included under SID. (*c*) Includes estimate for expenditure on Employment Strategies. (*d*) Included under National Promotional Campaign since 1983-84. (*e*) Industrial democracy, research grants appropriation is now included with items in the 'other services' sub-division of the Department's administrative appropriations. (*f*) Although this program, which was introduced by the previous Government, was administered by DEIR, its funds wer appropriated to the Department of Finance.

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CHAPTER 9

SOCIAL SECURITY AND WELFARE

The Commonwealth Government, the State Governments and voluntary welfare organisations all provide social welfare services. This chapter concentrates on the benefits and services provided by the Commonwealth Government, principally those of the Departments of Social Security and Veterans' Affairs but mention is also made of the services provided by the Departments of Aboriginal Affairs and Immigration and Ethnic Affairs. Also included is a section relating to Income Distribution surveys which provides a summary of the distribution of money income across the Australian population.

Details of services administered by the Commonwealth Department of Health are given in Chapter 10, Health. Details of pension and superannuation schemes for government and semi-government employees, mine workers, parliamentarians and employees of private business are included in Chapter 21, Private Finance.

Commonwealth Government expenditure on social security services

This section deals with various government payments for the relief of the aged, indigent, infirm, widowed, orphaned and unemployed; assistance to families; etc. On 1 July 1947, with the passage of the *Social Services Consolidation Act 1947*, all Acts providing social service benefits were amalgamated. The Act is at present styled the *Social Services Act 1947*.

The main social security benefits provided by the Commonwealth Government under the *Social Services Act* 1947, as at June 1984, and the date on which each came into operation, are shown below:

Age pension	1 July 1909
Invalid pension	14 October 1910
Family allowance	1 July 1941
Widow's pension	30 June 1942
Funeral benefit	1 July 1943
Unemployment benefit	1 July 1945
Sickness benefit	1 July 1945
Special benefit	1 July 1945
Allowances associated with the Commonwealth Rehabilitation Service (including Rehabilitation allowance)	10 December 1948
Sheltered employment allowance	30 June 1967
Wife's pension (superseded wife's allowance)	5 October 1972
Supporting parent benefit	3 July 1973
Double orphans' pension	26 September 1973
Handicapped child's allowance	30 December 1974
Mobility allowance	1 April 1983
Family income supplement	1 May 1983
Spouse carer's pension	1 December 1983

Details of the respective rates of pensions and benefits and details of associated allowances available to certain recipients are shown, along with more specific eligibility criteria, in the Annual Report of the Department of Social Security.

Age and invalid pensions and associated payments

Age pensions are payable to men and women who have reached the ages of 65 and 60 respectively. They are generally subject to residence qualifications and an income test.

Invalid pensions are payable to persons between sixteen years of age and age pension age who are permanently incapacitated for work to the extent of at least 85 per cent, or permanently blind. Invalid pension is paid subject to an income test, except for pensions paid to the permanently blind.

A wife's pension is payable to the wife of a pensioner not entitled, in her own right, to an age, invalid or repatriation service pension. There is no residence qualification, but an income test applies.

A spouse carer's pension is payable to the husband of a pensioner who is providing constant care and attention at home for his wife, if he is not eligible for a pension in his own right.

Additional pension is payable for each dependent child under 16 years and dependent full-time students aged 16 to 24 years, subject to the income test. Widowed or other unmarried age or invalid pensioners with a dependent child may, in addition, receive a guardian's allowance. Supplementary assistance, subject to a special income test, is available to pensioners if they pay rent or pay for board or lodging. Remote area allowance is payable to pensioners living in income tax Zone A, except for those aged 70 years or more receiving the special rate of age pension.

AGE PENSIONERS: 30 JUNE

Age	*1982*	*1983*	*1984*
60–64 years	156,882	161,921	168,545
65–69 years	335,014	326,582	315,704
70–74 years	367,469	376,115	357,274
75 years and over	507,670	526,220	516,606
Total	**1,367,035**	**1,390,838**	**1,358,129**
Number of wife/spouse carer pensioners(*a*)	27,516	26,380	24,561
Total payments during year(*b*) $'000	4,506,946	4,867,554	5,313,659

INVALID PENSIONERS: 30 JUNE

Age	*1982*	*1983*	*1984*
16–19 years	7,064	6,805	7,070
20–39 years	48,039	49,102	52,799
40–59 years	116,046	117,844	130,202
60 and over	45,500	46,538	50,503
Total	**216,649**	**220,289**	**240,574**
Number of wife/spous carer pensioners(*a*)	54,804	57,011	67,273
Total payments during year(*b*) $'000	977,125	1,068,350	1,252,650

(*a*) Spouse carer pensioners are included from June 1984. (*b*) Includes allowances, supplementary assistance and wives pensions where applicable.

Sheltered employment allowance and associated payments

Sheltered employment allowance is payable to disabled people who are employed in approved sheltered workshops and are otherwise qualified to receive an invalid pension or would become so qualified if they ceased to be provided with sheltered employment. The allowance is subject to the same income test as applies to invalid pension and is paid at the same rate. It is payable in the form of a supplement to the sheltered employee's wages.

At 30 June 1984, 177 workshops were paying the allowance to 9,597 disabled employees. Expenditure during the year 1983–84 was $45,933,000.

Widows' pensions and associated payments

There are three categories of widow pensioners:

Class 'A'. A widow who has the custody, care and control of one or more qualifying children under the age of sixteen years or dependent full time student aged 16–24;

Class 'B'. A widow who, because she has no qualifying children or students in her custody, care and control, is not eligible for a Class 'A' widow's pension but is either at least 50 years of age or, after having reached the age of 45, has ceased to receive a Class 'A' pension by reason of ceasing to have the custody, care and control of a qualifying child or student; and

Class 'C'. A widow not eligible for Class 'A' or Class 'B' widow's pension, who is under 50 years of age and is in necessitous circumstances within 26 weeks of her husband's death.

A widow's pension is income tested and is not payable to a woman receiving an age or invalid pension, a supporting parent's benefit, an unemployment, sickness or special benefit, a sheltered employment allowance, or a war widow's pension.

In addition to the basic pension, a mother's/guardian's allowance and additional pension for each dependent child are payable in the case of a widow with children. Supplementary assistance is also available to widows if they pay rent or pay for board or lodging. Remote area allowance is payable to widows living in income tax Zone A.

WIDOW PENSIONERS, BY AGE: 30 JUNE

Age	*1982*	*1983*	*1984*
Class A widow pensioners aged—			
Under 20 years	96	96	47
20–29 years	13,610	11,883	10,127
30–39 years	36,607	37,082	35,616
40–49 years	23,952	24,807	25,496
50–59 years	10,352	10,211	9,719
60 years and over	183	182	171
Class B widow pensioners aged—			
45–49 years	3,203	3,282	3,608
50–54 years	19,146	19,609	20,023
55–59 years	38,633	38,898	39,404
60 years and over	18,176	18,437	18,720
Class C widow pensioners	133	119	114
Total	**164,091**	**164,606**	**163,045**
Total payments during year (a) $'000	**717,386**	**758,086**	**829,537**

(*a*) Includes payment to benevolent homes for maintenance of pensioners. It also includes supplementary assistance and allowances.

Supporting parent's benefit

Supporting parent's benefit was introduced in November 1977 to extend to supporting fathers the same benefit as had previously been available to supporting mothers through supporting mother's benefit. The benefit is available to sole parents who have custody, care and control of a child under 16 years or a dependent full-time student aged 16 to 24 years. It is subject to an income test.

SUPPORTING PARENTS, BY AGE AND TYPE: 30 JUNE

Age and type of beneficiary	*1982*	*1983*	*1984*
Age			
Under 20 years	9,741	9,787	9,647
20–29 years	60,904	66,501	70,794
30–39 years	38,197	45,623	51,786
40–49 years	12,227	14,907	17,468
50–59 years	2,752	3,255	3,706
60 years and over	121	153	188
Type of beneficiary			
Females—			
Unmarried mothers	38,622	41,654	42,994
Separated wives	64,222	73,801	83,305
Separated de facto wives	15,175	16,903	18,381
Males—			
Widowers	856	1,072	1,128
Divorcees	1,106	1,468	1,591
Separated husbands	2,670	3,757	4,438
Separated de facto husbands	1,129	1,431	1,609
Other	162	142	143
Number of beneficiaries	123,942	140,228	153,589
Total payments during year (a) $'000	605,864	727,734	889,595

(*a*) Includes supplementary assistance and allowances.

Fringe benefits

The Commonwealth Government makes several non-cash 'fringe benefits' available to pensioners and recipients of supporting parent's and sickness benefits who are entitled to a Pensioner Health Benefits (PHB) card or a Health Benefits (HB) card and their dependants. The issue of these cards is subject to a special income test. These benefits include:

- a range of free pharmaceuticals;
- a one-third reduction in telephone rental (subject to the income of co-residents);
- reduced fares for Commonwealth Government railway and shipping services;
- postal redirection concessions; and
- free hearing aids services.

State Governments, local government authorities and private organisations also provide certain fringe benefits. The most valuable of these are reductions in local government rates and in public transport charges.

There were 1,717,851 pensioners with PHB (Pensioner Health Benefits) cards entitling them to Commonwealth pensioner fringe benefits at 30 June 1984.

Unemployment, and sickness and special benefits and associated payments

Unemployment and sickness benefits are paid to men over sixteen and under sixty-five years of age, and to women over sixteen and under sixty years of age, who are unemployed or temporarily incapacitated for work. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. Both benefits are subject to an income test. A person cannot receive both benefits simultaneously, nor can a person receive either benefit at the same time as an invalid, widow's, service pension or supporting parent's benefit.

For unemployment benefit purposes, people must establish that they are unemployed, that their unemployment is not due to industrial action by themselves or by members of a union of which they are a member, that they are capable and willing to undertake suitable work, and that they have taken reasonable steps to obtain such work. Registration for employment with the Commonwealth Employment Service is necessary. For sickness benefit purposes, people must establish that they are temporarily incapacitated for work because of sickness or injury and that they have thereby suffered a loss of salary, wages or other income.

All unemployment and sickness beneficiaries with dependent children are eligible for an additional benefit for each dependent child. After the benefit has been paid for six consecutive weeks a sickness beneficiary who is paying rent or is paying for board or lodging may be entitled to a supplementary allowance.

In the case of sickness benefit, any amount of compensation, damages or similar payment, or war disability pension, paid in respect of the same incapacity as that for which the benefit is claimed, is deducted from the benefit if it is paid in respect of the same period.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not eligible for any pension, and who, because of age, physical or mental disability or domestic circumstances, or any other reason, is unable to earn a sufficient livelihood for himself/herself and his/her dependants. Recipients of special benefits include, among others, unmarried women for a period before and after the birth of a child, persons caring for invalid parents or sick relatives/children, and persons ineligible for a pension because of lack of residence qualifications.

The benefit is designed to meet cases of special need and may also be paid as income support over a period if no other social security benefit is payable.

The rate paid may not exceed the rate of unemployment or sickness benefit which could be paid if the claimant were qualified to receive it.

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS; YEAR ENDED 30 JUNE

	1982	*1983*	*1984*
Unemployment beneficiaries:			
Number of benefits granted	(*b*)833,600	1,115,323	975,988
Number on benefit at end of year	390,664	635,002	584,506
Average number on benefit at end of each week during year	(*b*)332,000	540,198	619,600
Sickness beneficiaries:			
Number of benefits granted	(*b*)154,600	156,632	142,179
Number on benefit at end of year	53,522	64,203	62,400
Average number on benefit at end of each week during year	(*b*)48,600	57,684	63,200
Special benefit beneficiaries:			
Number of benefits granted	(*b*)69,700	70,074	95,700
Number on benefit at end of year	16,162	20,899	18,293
Average number on benefit at end of each week during year	(*b*)18,100	20,110	19,100
Amount paid during year(*a*) $'000:			
Unemployment	1,224,343	2,248,980	2,912,314
Sickness	225,053	270,776	335,882
Special benefit	74,107	89,167	92,782

(*a*) Includes additional benefits for children. (*b*) Estimated.

Family allowances

A family allowance is paid to a person caring for children under sixteen years or full-time students aged 16–24 years who are wholly or substantially dependent on that person. Family allowance is not paid for students receiving Tertiary Education Assistance or other related Commonwealth education allowances. Payment is usually made to the mother. Approved charitable, religious or government institutions are paid family allowances for children in their care.

Twelve months residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Security is satisfied that they intend to remain in Australia permanently. Under certain conditions, family allowance may be paid to Australians who are temporarily absent overseas.

FAMILY ALLOWANCES: 30 JUNE, 1984

Number of children and students in family	*Number of families*								
	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total(a)*
1	267,266	198,356	122,520	69,317	68,952	22,152	7,898	12,444	768 905
2	295,636	232,760	137,977	78,585	81,933	24,978	8,146	16,609	876,624
3	130,887	105,170	65,170	29,635	35,908	11,202	4,000	7,758	389,730
4	37,231	29,690	20,031	6,980	9,469	3,175	1,455	2,099	110,130
5	7,973	6,270	4,791	1,255	1,904	658	524	447	23,822
6	2,261	1,771	1,428	336	559	148	206	97	6,806
7	698	532	454	112	156	45	77	26	2,100
8	234	158	163	32	48	20	19	19	693
9	71	71	43	12	14	1	8	3	223
10 or more	42	35	24	4	8	1	2	3	119
Total	**742,299**	**574,813**	**352,601**	**186,268**	**198,951**	**62,380**	**22,335**	**39,505**	**2,179,152**
No. of children in approved institutions	4,483	2,060	2,551	349	970	124	75	32	10,644
Amount paid during year ($'000)	537,777	401,531	249,228	137,940	136,955	42,820	(*a*)	(*e*)	1,506,318

(*a*) Expenditure for N.T. and A.C.T. included in expenditure for S.A. and N.S.W. respectively.

Family income supplement

Family income supplement is paid subject to an income test to low-income families with one or more children eligible for family allowances so long as they are not in receipt of any Commonwealth pension, benefit or allowance which provides additional payment for dependent children. The number of families in receipt of family income supplement at 30 June 1984 was 26,531. The amount paid during the year 1983-84 was $36,129,000.

Handicapped child's allowance

Parents or guardians of a child under sixteen years or a dependent full-time student who is severely handicapped mentally and/or physically, is living in the family home, and needs constant care and attention, are entitled to a handicapped child's allowance. The allowance is not subject to an income test, but a residence qualification similar to that for family allowance applies. The allowance is also available to persons on low income who are caring for a substantially handicapped child and are suffering severe financial hardship as a result of expenditure associated with the child's disability. The number of handicapped child's allowances being paid at 30 June 1984 was 28,502. The total amount paid through these allowances during the year 1983–84 was $27,661,000.

Allowances association with the Commonwealth Rehabilitation Service (CRS)

The Commonwealth Rehabilitation Service assists people with a long-term disability who are within the broad working age group. It aims to help disabled people to reach their maximum physical, mental, social and vocational usefulness and to assist them to live as independently as possible. Towards this aim, it provides co-ordinated programs of treatment and training to meet the special needs of each disabled person. Responsibility for the delivery of these services rests with the residential and day-attendance rehabilitation centres, work adjustment centres, work preparation centres, and regional rehabilitation units.

Rehabilitation may also be made available to people aged 14 or 15 years who, without treatment or training, would be likely to qualify for invalid pension at age sixteen.

Since March 1983 persons undertaking a Commonwealth rehabilitation program and who would otherwise have been eligible for another pension or benefit were paid a rehabilitation allowance subject to an income test. Living-away-from-home allowance is paid where necessary. Fares and living expenses (including those of an attendant where required) in connection with treatment, training or attendance for an interview or for medical examination may also be paid. Necessary aids, appliances and modifications may be provided free of charge to a person receiving treatment and training or who needs them to assist him or her to engage in a suitable vocation after the discontinuance of his treatment and training or who needs them otherwise to assist in his or her rehabilitation.

Treatment, training and assessment programs are undertaken at rehabilitation centres where occupational therapists, vocational counsellor, qualified tradesmen and teachers determine the skills which make best use of ability and which are best adapted to the person's needs. In addition to the services provided at each centre, technical schools, business colleges, universities, training on-the-job in commerce or industry and correspondence courses are all used for training purposes. In 1983–84, 7641 persons commenced rehabilitation.

Portability of social service payment

Age, invalid and widows' pensions and supporting parent's benefits continue in force for recipients who have left Australia unless they left before 8 May 1973 or their pension or benefit is subject to the provisions of either of the reciprocal agreements with New Zealand or the United Kingdom. In certain cases of hardship, the pension or benefit may continue for people who left before 8 May 1973. The number of Australian pensions being paid overseas under the general portability provisions at 30 June 1984, was 20,229.

Other services of the Department of Social Security

The Department of Social Security provides a professional social work service and Ethnic and Aboriginal Liaison Office Schemes. It administers grants to major national welfare organisations such as: Australian Council of Social Service, Australian Council on the Ageing, Australian Council for Rehabilitation of Disabled, Australian Early Childhood Association and to non-government welfare agencies providing emergency relief or in financial difficulties.

To assist in its role of advising the government on welfare policy, the Department of Social Security initiates, develops and evaluates experimental projects in social welfare and undertakes research studies.

The Department supports the work of the Social Welfare Research Centre at the University of New South Wales and provides a grant to the Social Welfare Research Unit of the Australian Council of Trade Unions (ACTU).

Commonwealth Government assistance through welfare organisations

Accommodation for aged and disabled people

The *Aged or Disabled Persons Homes Act 1954* is designed to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under the Act an organisation must be:

(i) carried on otherwise than for the purposes of profit or gain to the individual members; and
(ii) a religious organisation, an organisation of which the principal objects or purposes are charitable or benevolent, an organisation of former members of the defence forces established in every State or a State branch of such an organisation, an organisation approved by the Governor-General for the purposes of the Act, or a local governing body.

An organisation conducted or controlled by, or by persons appointed by, the Commonwealth or any State Government is not eligible for assistance under the Act.

The Director-General of the Department of Social Security or his delegate may make a grant of money to an organisation as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons.

The following table gives information regarding grants approved for each of the past three years. The amounts granted in each year include new grants approved in that year together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED OR DISABLED PERSONS HOMES ACT: GRANTS AND AMOUNTS APPROVED AND BEDS PROVIDED

		1981–82	*1982–83*	*1983–84*
Grants approved	No.	119	230	172
Amount approved	$'000	28,715	54,455	43,709
Beds provided—				
Self-contained	No.	324	751	478
Hostel	„	691	1,400	1,219
Nursing	„	1,031	1,455	932
Total	„	**2,046**	**3,606**	**2,629**

The Aged or Disabled Persons Homes Act also provides a *personal care subsidy* paid to eligible organisations for persons of eighty years of age or over and other persons requiring and receiving approved personal care while living in hostel-type accommodation provided by organisations eligible under the Aged or Disabled Persons Homes Act. The following table gives details of the premises approved, payments made and number of residents aged eighty years or over residing in the approved premises.

AGED OR DISABLED PERSONS HOMES ACT: PERSONAL CARE SUBSIDIES, 30 JUNE 1984

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved premises	No.	251	220	156	111	95	21	2	6	862
Residents qualifying	No.	6,137	3,730	2,940	2,025	1,479	392	28	106	16,837
Subsidies paid, 1983–84	$'000	9,508	7,893	6,122	4,562	3,560	866	62	143	32,716

Handicapped people

Under the *Handicapped Persons Assistance Act 1974* eligible organisations may apply for subsidies towards the cost of providing capital projects, maintenance and equipment. Grants are also available in respect of rental and certain salary payments.

As well as assisting organisations with establishment and running costs, the legislation also provides financial encouragement to sheltered workshop administrations to provide the type of training for the handicapped which will prepare them, where possible, for open employment. A *training fee* is paid to organisations providing approved sheltered employment for each handicapped employee who graduates to open employment. A handicapped children's benefit is paid to organisations providing approved residential accommodation for handicapped children. During 1983–84 assistance was provided to 1,227 organisations at a total cost of $77m.

Homeless people

The *Homeless Persons Assistance Act 1974* helps non-profit organisations and local governing bodies which provide accommodation, food and social welfare services for homeless men and women.

The Act enables grants to be made to eligible organisations to meet the cost of purchasing, constructing, altering or renting buildings to be used as homeless persons' assistance centres, as well as to meet the cost of purchasing furniture, furnishings and equipment for such centres. Grants also meet half the salary of a social welfare worker employed at a centre. The amount of grants made for these purposes during 1983–84 was $8,751,351.

The *Delivered Meals Subsidy Act 1970* helps eligible organisations to establish, maintain, expand and improve 'meals on wheels' services. In 1983–84, 776 organisations had received a total subsidy of $5,629,499 under the Act.

Children's Services

The Children's Services Program is administered by the Office of Child Care, within the Department of Social Security. It provides grants to State, and local governments and community organisations for a flexible network of services for children and their families mainly concentrating on day care and pre-school centres. The general principle guiding approval of grants is one of directing assistance on a needs basis.

Other services funded under the program include support services for families and adolescents, special services for migrants, Aborigines and disabled children and research, evaluation and information projects.

Two components of the Program which are administered jointly with State Governments have been identified as the Family Support Services and the Youth Services Schemes. While these are identified separately as schemes, they are an integral part of the Children's Services Program.

EXPENDITURE ON CHILDREN'S SERVICES PROGRAM
($'000)

	1981–82	1982–83	1983–84
Pre-school	33,005	33,090	33,090
Other child care	47,355	64,954	80,125
Total	**80,360**	**98,044**	**113,215**

Aboriginals

A referendum in May 1967 led to the repeal of section 127 of the Constitution which provided that, in reckoning the numbers for census purposes, Aboriginals should not be counted, and to the deletion of the words 'other than the Aboriginal race in any State' from section 51 (xxvi) which relates to the power of the Commonwealth Parliament to make laws in respect to people of any race. The Constitutional amendment, in effect, gave the Commonwealth Government shared power with the State Governments in relation to Aboriginals. The Commonwealth Government's aim is to help Aboriginals become self-managing and self-sufficient while, at the same time, preserving and developing their own distinctive culture. The Commonwealth Department of Aboriginal Affairs which is responsible for policy, planning and co-ordination in respect of Aboriginal affairs at the national level has regional offices in all States and the Northern Territory.

The National Aboriginal Consultative Committee (NACC), established in 1973, was replaced in 1977 by the National Aboriginal Conference (NAC) whose 36 members are elected by Aboriginals throughout Australia for three-year terms. Its role is to provide a forum in which Aboriginal views can be expressed at State and national level and, in particular, to express Aboriginal views on the long term goals and objectives which the Government should pursue, the programs it should adopt in Aboriginal affairs, and on the need for new programs in Aboriginal affairs.

From 1 July 1981, the NAC Executive assumed the advisory functions and powers of the former Council for Aboriginal Development.

The Aboriginal Development Commission (ADC), an all-Aboriginal Commission, was established in 1980 by the Commonwealth Government as an independent body. The ADC assists Aboriginal and Torres Strait Islander groups, communities and individuals to acquire land for a variety of purposes, engage in business enterprises, obtain finance for housing and other personal needs, and to receive training where necessary.

Migrants

Intake

The number of migrants who have come to Australia since the end of the Second World War has passed the 4 million mark. These migrants have contributed significantly to Australia's population which has more than doubled, from 7.4 million at the end of 1945 to 15.1 million at the end of 1981. At the time of the 1981 Census, almost 22 per cent of Australia's population was overseas born. Post-war immigration peaked in 1970 with 185,300 settler arrivals, declined thereafter to a low of 54,100 in 1975, increased again to 119,300 in 1981 and decreased to 79,400 in 1983.

Accommodation of migrants

Migrant Centres provide a residential base for the provision of programs and services for newly arrived refugees and some other migrants.

There are 14 Migrant Centres located in all States and the N.T. with a capacity to accommodate up to 10,000 migrants and refugees. Additionally, 378 migrant transitory flats can accommodate up to 1,900 persons at any time.

Due to a downturn in demand for migrant centre accommodation the Department of Immigration and Ethnic Affairs has closed 4 migrant centres, but two of these (Cabramatta and Fairy Meadow) continue to provide non-residential services such as English tuition and orientation classes.

Ethnic affairs—Services for migrants and refugees

The Department of Immigration and Ethnic Affairs provides services to facilitate the successful settlement and welfare of migrants and refugees.

In addition, the Department is responsible, through its Ethnic Affairs Division, for advancing policies designed to secure the successful settlement and integration of migrants into Australian society. These policies include fostering the preservation and sharing of the cultural heritage of migrant communities, and maintenance of harmonious inter-group relations in Australia's multicultural society. The Department provides advice to a number of other departments whose responsibilities are particularly important within this context.

Departmental social workers and welfare officers provide information and advice, and, in more complex cases, professional counselling for migrants in their own language. They operate from the Regional Offices of the Department in the State capital cities with some outposted to migrant centres, voluntary welfare organisations and other centres in areas of high migrant density. They are also involved in community development work and provide consultancy services to other agencies assisting migrant settlement.

Departmental activities are complemented by those of social workers and welfare officers employed by voluntary agencies funded by Commonwealth grants administered by the Settlement Branch. In many respects these voluntary agencies are best placed to assist migrants. There has been an increase in the number of Grants-in-Aid for the employment of welfare workers by voluntary agencies from 140 to 201 in 1985–86.

The Department provides a free translation and interpreting service for migrants during the settlement period and offers a translation service to Commonwealth departments and other bodies for a fee. At the present time translation units are operating in Canberra, Sydney and Melbourne.

In 1973 a Telephone Interpreter Service (TIS) was introduced to help overcome communication problems by providing over the telephone, in a wide range of languages, a general interpreting, information and referral service for migrants and others having dealings with migrants. Where necessary and especially in emergency situations, arrangements may be made for the personal attendance of an interpreter. TIS currently operates in Canberra, all State capitals, Darwin and in a number of major provincial centres of migrant population. During the year ended 30 June 1984, a total of 300,000 calls was received by TIS.

Cost-sharing agreements have been concluded with the Governments of New South Wales, Victoria, Queensland and South Australia for the establishment or extension of State operated interpreting and translation services. A major new agreement for a Victoria legal interpreting service, involving a Commonwealth contribution of $1m. over 3 years, was introduced in June 1984.

A National Accreditation Authority for Translators and Interpreters (NAATI) was established by the Commonwealth Government in 1977 to develop standards of competence for translators and interpreters in Australia and to test and accredit at those standards. State/Territory Panels for Translators and Interpreters have been established in all States and Territories to administer tests to those seeking accreditation. From 1 July 1983 it became an independent body funded mainly by the Commonwealth and States on a shared basis.

Twenty-three migrant resource centres and ten sub-centres have been established in areas of high migrant density. These resource centres provide support for all agencies (both government and voluntary) which assist migrants, and also provide a focus for community participation and development of local resources to meet migrant needs.

The settlement of refugees has become an important element in the Commonwealth Government's overall migrant settlement program. Most of these refugees are acommodated intitially at Commonwealth Government migrant centres where they are able to participate in an initial settlement program designed to facilitate their settlement in the community. In addition, under the Community Refugees Settlement Scheme, numbers of refugees are moved directly from the refugee camps overseas into the Australian community where they are in the care of families, groups and organisations which have undertaken to provide a range of support and assistance.

The Adult Migrant Education Program (AMEP) provides a wide range of language learning opportunities, as well as offering information about Australia, its services and institutions. The Department is responsible for the funding and co-ordination of the program at the national level, while service delivery is provided in the main by Adult Migrant Education Services in each State and Territory.

In 1983–84 expenditure on the Adult Migrant Education Program was $39m. New enrolments in the Program nationally totalled just over 120,000 persons including 17,000 in courses for new arrivals.

The status of 'Australian citizen' was created under the *Nationality and Citizenship Act 1948* which came into force on 26 January 1949. The relevant Act is now the *Australian Citizenship Act 1948* and under its provisions all new settlers regardless of origin, are required to satisfy uniform requirements for the grant of citizenship. A major review of the Act, which included public consultations in every State and Territory, has recently been completed. Amendments are expected to be introduced into Federal Parliament soon. In the financial year 1983–84, 113,810 applications for Australian citizenship were received compared with 101,287 in 1982–83. Over 1.6 million new settlers have been granted Australian citizenship since 1945.

VETERANS' AFFAIRS

The Repatriation Commission, established under the *Repatriation Act 1920*, consists of three full-time members. It is responsible for the administration of the Repatriation Act and associated legislation, all matters of policy, and the general administration and overall supervision of the provision of benefits under the legislation. The Chairman of the Commission is also the Secretary of the Department of Veterans' Affairs, which provides the administrative machinery through which the Commission operates. The central office is in Canberra and there is a branch office, under the control of a Deputy Commissioner, in each State.

The principal functions of the Department are: the payment of disability and dependants' pensions (previously called war pensions) and service pensions and allowances to eligible veterans and their dependants; the provision of medical treatment for veterans for injuries and illnesses accepted as service-related; the provision of medical treatment in certain circumstances for veterans who are suffering from injuries and illnesses whether service-related or not; the provision of medical treatment for war/ defence widows and certain dependants of deceased veterans; and provision of a wide range of other benefits for eligible persons. Since 5 October 1976, the *Defence Service Homes Act 1918* has been administered by the Defence Service Homes Corporation (DSHC) within the departmental framework. At the same time, the Department was given responsibility for the Office of Australian War Graves.

Repatriation benefits are provided in respect of service not only in the 1914–18 and 1939–45 Wars but also in the South African War 1899–1902, in the Korea and Malaya operations, in prescribed areas with the British Commonwealth Far East Strategic Reserve (F.E.S.R.) and the Special Overseas Forces and, in certain circumstances, in the Regular Defence Forces or peacekeeping forces.

For detailed information about repatriation pensions, allowances, benefits and services, reference should be made to the annual reports of the Repatriation Commission.

VETERANS' AFFAIRS (excl. DSHC): TOTAL EXPENDITURE(*a*)

($'000)

Class	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
Pensions, allowances and other benefits	860,229	966,072	1,193,181	1,329,871	1,719,058	2,035,026
Medical treatment	268,539	310,327	357,219	426,360	499,005	561,035
Administration	44,441	49,539	52,885	63,996	69,556	84,848
Works, rent and maintenance	21,301	27,881	24,587	22,136	26,968	43,021
Total expenditure	**1,194,511**	**1,353,819**	**1,627,872**	**1,842,363**	**2,314,597**	**2,723,930**

(*a*) Includes expenditure by Departments other than Veterans' Affairs as follows: 1978–79, $18,819,531; 1979–80, $25,072,835; 1980–81, $21,270,359; 1981 82, $18,260,360; 1982-83, $22,738,924; 1983-84, $27,541,925.

Disability pensions

The first provision for the payment of disability pensions to veterans and pensions to their dependants was made by the Commonwealth Parliament in the *War Pensions Act 1914*. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act 1920* (amended from 31 December 1950 to the Repatriation Act). Amendments to the Act in 1943 considerably widened the eligibility provisions, to the benefit mainly of members of the Citizen Military Forces who had not served outside Australia during the 1939–45 War.

Main pension rates vary twice each year; current rates are available from Department of Veterans' Affairs Branch Offices.

Summary of disability pensions

The following table provides a summary of disability pensions according to the veteran's war/area of service. Statistics relating to miscellaneous disability pensions are included collectively in each table, with further details being provided later in this section.

DISABILITY AND DEPENDANTS' PENSIONS: 1983–84

		1914–18 War	*1939–45 War(a)*	*Korea, Malaya and F.E.S.R.*	*Special Overseas Service*	*Peace time forces*	*Miscel- laneous*	*Total*
Pensions in force at 30 June 1984 (*b*)	No.	25,271	336,509	9,173	23,268	12,849	207	407,277
Annual pension liability at 30 June 1984	$'000	74,158	575,006	10,434	10,789	6,125	436	676,948
Amount paid in pensions during the year 1983–84	$'000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	722,660
New claims granted	No.	199	8,735	316	1,275	2,585	9	13,119
Restorations	"	10	559	68	129	113	—	879
Pensions cancelled (gross)	"	88	3,614	319	553	368	5	4,947
Deaths of pensioners	"	2,834	8,825	106	44	22	11	11,842

(*a*) Includes Interim Forces. (*b*) Includes 3,081 student children over 16 years of age.

Classes of disability pensions

The following tables provide an analysis of the number of pensions in force, veteran's class of pension, new claims and deaths for 1983–84.

DISABILITY PENSIONS IN FORCE: 30 JUNE 1984

Class	*1914–18 War*	*1939–45 War(a)*	*Korea, Malaya and F.E.S.R.*	*Special Overseas Service*	*Peace time forces*	*Miscellaneous*	*Total (b)*
Veterans	3,417	146,296	4,011	7,479	4,792	67	166,062
Wives and wives (widows)	9,777	138,363	3,218	5,703	3,421	72	160,554
Children (*b*)	6	6,746	1,376	9,551	4,348	4	22,031
War widows	11,807	42,570	426	222	146	62	55,233
Children of deceased veterans	2	486	73	214	137	–	912
Orphans	–	43	2	6	3	–	54
Other dependants	262	2,005	67	93	2	2	2,431
Total	**25,271**	**336,509**	**9,173**	**23,268**	**12,849**	**207**	**407,277**

(*a*) Includes Interim Forces. (*b*) Includes 3,797 student children over 16 years of age.

DISABILITY PENSIONS FOR INCAPACITATED VETERANS IN FORCE: BY CLASS OF PENSION 30 JUNE 1984

Class	*1914–18 War*	*1939–45 War(a)*	*Korea, Malaya and F.E.S.R.*	*Special Overseas Service*	*Peace time forces*	*Miscellaneous*	*Total*
Special Rate (T & P I) or equivalent	866	18,609	333	225	86	6	20,125
Intermediate Rate	21	1,074	25	15	7	–	1,142
General Rate—from 10 per cent to 100 per cent assessed disability	2,530	126,613	3,653	7,239	4,699	61	144,795
Total	**3,417**	**146,296**	**4,011**	**7,479**	**4,792**	**67**	**166,062**

(*a*) Includes Interim Forces

Summary of disability pensions, 1978–79 to 1983–84

The following table shows the number of pensions granted, pensions in force and the expenditure for disability pensions in each of the years ended 30 June 1979 to 1984.

DISABILITY PENSIONS

			Number of disability pensions in force at 30 June(a)				
Year	*Pensions granted*	*Deaths*	*Incapacitated veterans*	*Dependants of incapacitated veterans*	*Dependants of deceased veterans*	*Total*	*Annual expenditure(b) ($'000)*
1978–79	7,257	11,500	182,988	212,177	53,136	448,301	415,329
1979–80	6,141	11,151	178,471	204,265	52,031	434,767	432,001
1980–81	6,732	11,680	174,278	197,603	51,453	423,334	496,310
1981–82	7,325	11,648	170,546	190,970	51,614	413,130	510,675
1982–83	13,420	11,815	168,355	186,859	55,259	410,473	646,470
1983–84	13,119	11,842	166,062	183,105	58,110	407,277	722,660

(*a*) Includes Interim Forces 1939–45 War. (*b*) Includes domestic allowance payable to widows.

Miscellaneous disability pensions

The Commission is also responsible for the payment of pensions and allowances to beneficiaries under the *Seamen's War Pensions and Allowances Act 1940*, the *Papua New Guinea* (*Members of the Forces Benefits*) *Act 1957* and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war-time.

The following table shows the number and class of pensions and the annual liability at 30 June 1984.

MISCELLANEOUS DISABILITY AND DEPENDANTS' PENSIONS: NUMBER OF PENSIONS, 30 JUNE 1984

Class	*Number of pensions in force at 30 June 1984*			
	Veterans(a)	*Dependants of incapacitated veterans*	*Dependants of deceased veterans*	*Total*
Seamen's war pension	66	76	35	177
New Guinea civilians	1	..	29	30
Total	**67**	**76**	**64**	**207**

(*a*) 'Veterans', in this context, are persons in respect of whose war-time experience a pension is paid. (*b*) Includes domestic allowances payable to widows.

Service pensions

The *Repatriation Act 1920* provides for a service pension to be paid (subject to an income test unless the person is blind) to the following persons:

- male veterans who served in a theatre of war (or in a designated *Operational* or *Special Overseas Service* area) and have attained the age of sixty years or are permanently unemployable;
- female veterans who served in a theatre of war, or served abroad or embarked for service abroad and have attained the age of fifty-five years, or are permanently unemployable;
- veterans of the South African War 1899–1902 who were members of a naval or military force or contingent raised in Australia for active service in that war;
- veterans of other British Commonwealth Forces who served outside the country of enlistment or within that country if a campaign medal has been awarded in respect of such service. Ten years residence in Australia is a necessary qualification;
- veterans who served in formally raised allied forces in conflicts in which Australia participated, who served in a theatre of war and at no time served in enemy forces. Ten years residence in Australia is also necessary.

British Commonwealth and Allied mariners who served in a theatre of war in the 1939–45 war and who satisfied the ten year residency requirement are eligible as from 3 February 1983.

A veteran in receipt of a service pension is entitled, subject to an income test, to free medical benefits for disabilities not service-related. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment, and treatment in Repatriation General Hospitals.

Main pension rates vary twice each year; current rates are available from the Department of Veterans' Affairs' Branch Offices.

The following table provides a summary of Service Pensions according to the veteran's war/area of service.

SERVICE PENSIONS 1983–84

		1914–18 War	*1939–45 War*	*Korea-Malaya operations*	*Special Overseas Service*	*British Commonwealth*	*Allied Forces*	*Miscellaneous*	*Total*
New claims granted	No.	193	40,700	653	340	7,714	1,244	986	51,830
Restorations	"	30	215	5	4	21	4	5	284
Cancellations (gross)	"	205	5,175	74	25	577	74	38	6,168
Deaths	"	1,194	8,022	81	14	463	64	28	9,866
Pensions in force at 30 June 1984	"	7,084	322,074	2,524	856	36,099	5,347	1,521	375,505
Annual liability at 30 June 1984	$'000	24,994	932,622	9,381	3,096	130,245	18,581	5,498	1,124,417
Amount paid in pensions during 1983–84	$'000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,294,279

Class of service pensions

The following tables give an analysis of the total number of pensions in force, new claims granted and deaths for 1983–84.

SERVICE PENSIONS: NUMBER IN FORCE, 30 JUNE 1984

Class	*1914–18 War*	*1939–45 War*	*Korea-Malaya operations*	*Special Overseas Service*	*British Common-wealth*	*Allied Forces*	*Miscell-aneous*	*Total*
Veterans—								
old age	4,484	152,768	578	65	18,384	2,744	742	179,765
permanently unemployable	534	33,586	980	440	2,086	238	136	38,000
Tuberculosis(*a*)	11	861	13	1	9	–	–	895
Total	*5,029*	*187,215*	*1,571*	*506*	*20,479*	*2,982*	*878*	*218,660*
Wives and widows	2,055	134,859	953	350	15,620	2,365	643	156,845
Total	**7,084**	**322,074**	**2,524**	**856**	**36,099**	**5,347**	**1,521**	**375,505**

(*a*) Eligibility on these grounds ceased on 2 November 1978.

The following table provides a summary of Service Pensions.

SERVICE PENSIONS

			Pensions in force			
	Pensions granted	*Deaths*	*Veterans*	*Depend-ants*	*Total*	*Annual expenditure ($'000)*
1978–79	36,607	7,827	131,792	80,630	212,422	436,196
1979–80	40,735	7,952	146,370	93,594	239,964	525,178
1980–81	46,189	8,966	163,237	108,841	272,078	686,487
1981–82	42,766	8,894	178,064	121,838	299,902	807,537
1982–83	57,012	9,604	200,492	140,656	341,148	1,057,950
1983–84	51,830	9,866	218,660	156,845	375,505	1,294,279

Medical treatment for veterans and dependants of veterans

Medical treatment is provided for all disabilities which have been accepted as service-related, and for pulmonary tuberculosis and cancer not related to service. In addition, and subject to certain conditions, treatment is provided for most non-service-related disabilities for: incapacitated veterans receiving disability pensions at or above the maximum (100 per cent) General Rate; 1939–45 War veterans receiving both service pension at any rate and disability pension at the 50 per cent rate or higher; veterans or nurses who served in the 1914–18 War; veterans of the Boer War; ex-prisoners-of-war; war widows and certain other dependants of deceased male veterans whose deaths have been accepted as service-related, and of deceased Special Rate pensioners; and certain service pensioners.

Treatment is provided at six Repatriation general hospitals (one in each State) and three auxiliary hospitals and an ANZAC hostel in Victoria. The total number of available beds for patients in wards or parts of wards open for use in all these institutions at 30 June 1984 was 2,735 and expenditure during 1983–84 amounted to $214,847,376. In addition, expenditure of $346,160,742 was incurred during 1983–84 on medical services outside these institutions.

Community patients

Where spare bed capacity exists in the Repatriation hospitals, patients may be admitted from the general community to a level not exceeding 20 per cent of the total occupied beds of the hospital over a period of time.

Repatriation hospitals and institutions

Details of full-time staff in Repatriation general hospitals and other Repatriation institutions are given in the following table.

REPATRIATION HOSPITALS AND INSTITUTIONS: FULL-TIME OPERATIVE STAFF 30 JUNE 1984

Type of institution	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*N.T.*	*Aust.*
General hospitals	2,452	1,586	1,165	775	855	217	–	–	7,050
Other in-patient institutions	272	133	80	–	–	–	–	–	485
Limb and appliance centres	64	73	29	21	15	12	–	1	215
Total	**2,788**	**1,792**	**1,274**	**796**	**870**	**229**	–	**1**	**7,750**

The following table gives details of in-patients treated at Repatriation general hospitals and other Repatriation institutions in each State. The figures shown refer to treatment episodes, e.g. a person who is admitted to hospital twice during a year is counted twice.

REPATRIATION GENERAL HOSPITALS AND INSTITUTIONS: IN-PATIENTS TREATED, 1983–84

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
REPATRIATION GENERAL HOSPITALS							
In-patients at beginning of year	658	450	385	255	302	92	2,142
Admissions and re-admissions during year	19,050	15,569	11,034	7,282	9,555	2,325	64,815
Total in-patients treated	*19,708*	*16,019*	*11,419*	*7,537*	*9,857*	*2,417*	*66,957*
Discharges	18,355	15,044	10,657	7,050	9,244	2,236	62,586
Deaths	782	614	442	280	331	110	2,559
In-patients at end of year	571	361	320	207	282	71	1,812
Average daily beds occupied	608	417	354	222	280	74	1,955
REPATRIATION AUXILIARY HOSPITALS							
In-patients at beginning of year	172	131	59	—	—	—	362
Admissions and re-admissions during year	1,794	648	543	—	—	—	2,940
Total in-patients treated	*1,921*	*779*	*602*	—	—	—	*3,302*
Discharges	1,681	579	486	—	—	—	2,746
Deaths	75	74	61	—	—	—	210
In-patients at end of year	165	126	55	—	—	—	346
Average daily beds occupied	155	120	54	—	—	—	329

In addition to the repatriation institutions, eligible patients are treated in other country and metropolitan hospitals and nursing homes at departmental expense. During 1983–84, 47,571 Repatriation in-patients were accommodated and treated in country and metropolitan hospitals and 6,652 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department of Veterans' Affairs in separate wings of psychiatric hospitals administered by the State authorities. Excluding 34 on trial leave, there were 433 repatriation patients in these hospitals at 30 June 1984.

Out-patient treatment is provided throughout Australia at repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1983–84, 788,647 out-patients were treated at Repatriation institutions, and local medical officers consultations totalled 2,892,298. The number of Repatriation local medical officers in Australia at 30 June 1984 was 11,247.

Artificial limb and appliance services

A wide range of artificial limbs and other surgical aids is supplied by the artificial limb and appliance centre in each State capital and Darwin. In addition, the Department maintains the Central Development Unit located in Melbourne, and engages in research and development in the prosthetic and orthotic field.

Since 1973, artificial limbs have been provided free of charge to all members of the community who need them (except where patients are eligible for compensation), either through the Department's artificial limb and appliance centres or on order through commercial limb-makers. The number of limbs supplied through the Department has increased significantly as the community has taken advantage of the free-limbs scheme.

Details of production at all centres during 1983–84 are as follows: arms, 181; legs, 2,238; surgical and adapted footwear, 6,721; other surgical appliances, 977; and repairs, 25,974. In addition the Department purchased from commercial manufacturers 2,429 legs, 180 arms and 7,136 limb repairs.

General Repatriation benefits and miscellaneous

Other activities of Department of Veterans' Affairs

In addition to the payment of pensions and the provision of medical treatment, the Department also provides various benefits and allowances designed to meet the needs of special classes of veterans and their dependants. These include the Soldiers' Children Education Scheme.

In addition, gift cars and an annual allowance for their upkeep are provided for veterans who, as a result of service, have suffered the amputation of both legs above the knees or amputation of one leg above the knee plus any two other amputations (above the ankle or at or above the wrist) or complete paraplegia resulting in the total loss of the use of both legs. A grant of up to $550 may be made towards the funeral expenses of eligible veterans and certain of their dependants. As from 13 November 1980, Temporary Incapacity Allowance may be paid to a veteran whose stay in hospital together with post-hospital convalescence or other treatment on a full-time basis exceeds 28 days. Payment of up to $10 may be made to provide such necessities as meals, sleeping accommodation, etc., for veterans in need of immediate relief. Also, certain concessions in telephone rental charges are provided for some classes of veterans and their dependants, including blinded veterans, war and defence widows and certain service and Special Rate disability pensioners. Veterans who have been blinded as a result of service may be issued with talking book machines. The Royal Victorian Institute for the Blind supplies 'book' records or cassettes for these machines free of charge, thus enabling the blind to enjoy a wide range of literature.

Expenditure in 1983–84 on general Repatriation benefits for all wars was $18,087,000 comprising Soldiers' Children Education Scheme, $3,108,000; recreation transport allowance, $1,568,000; and other benefits, $10,814,000.

As at 30 June 1982, trust and other funds administered by the Department of Veterans' Affairs held $56,000 in securities (face value) and $1,287,000 in cash, a total of $1,343,000.

Reciprocal arrangements with the United Kingdom, New Zealand and other countries provide for the payment of pensions, etc., to eligible Australian veterans living overseas and to eligible veterans from overseas who are living in Australia.

Soldiers' Children Education Scheme

The Soldiers' Children Education Scheme was established in 1921 and operates to assist and encourage eligible children in acquiring a standard of education compatible with their aptitude and ability. Children of veterans whose deaths have been accepted as service-related; or of veterans who died from causes not service-related but who were receiving at the date of death a disability pension at a Special Rate for blindness, total and permanent incapacity, or amputation of two or more limbs; or of veterans who, as a result of service, are blinded totally and permanently incapacitated; or of deceased veterans who served in a theatre of war if the child is not being cared for by the other parent are eligible. From the commencement of primary education until the child reaches twelve years of age, school requisites and fares are provided. From the commencement of secondary education or from the age of twelve years, whichever is earlier, an education allowance is payable while the child is undertaking primary or secondary education or a course of specialised education or training necessary for a career.

All education allowances are subject to an income test, i.e. the amount of education allowance payable depends on the amount of income a child receives over the allowed limit. Weekly rates of allowances vary from time to time; current rates are available from the Department of Veterans' Affairs' Branch Offices.

The following tables show the costs of education under the scheme for the year ended 30 June 1984, and the number of children in receipt of benefit at 30 June 1984.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1983–84

($'000)

	N.S.W.(a)	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Aust.*
Cost of education of beneficiaries—							
Under 12 years of age	3.9	3.3	5.5	3.4	2.6	1.0	19.7
12 years of age and over	1,173.7	779.2	521.6	270.9	188.3	133.9	3,067.6
Total expenditure	**1,177.6**	**782.5**	**527.1**	**274.3**	**190.9**	**134.9**	**(*c*)3,087.3**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory. (*c*) Excludes overseas expenditure of $20,200.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS AT 30 JUNE 1984

Type of training	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Over-seas*	*Total*
At school—								
Primary (*c*)	142	89	170	40	37	37	–	515
Secondary	486	268	277	122	79	97	8	1,337
Total at school	*628*	*357*	*447*	*162*	*116*	*134*	*8*	*1,852*
Tertiary/professional	246	159	99	62	51	24	5	646
Technical	31	59	15	–	–	6	–	111
Industrial	22	3	9	22	1	6	–	69
Grand total	**927**	**578**	**570**	**246**	**174**	**170**	**13**	**2,678**

(*a*) Includes A.C.T. (*b*) Includes N.T. (*c*) Not in receipt of an education allowance.

Re-establishment benefits for former regular servicemen

Subject to prescribed conditions, vocational training and business loans are provided for former regular servicemen with a view to ensuring that they are not at a disadvantage when they return to civil life. Loans up to $5,000 (business and professional) and $10,000 (agricultural) may be granted to veterans in these categories who satisfy prescribed requirements in respect of suitability of their proposed business propositions and adequacy of security. Agricultural and business loans are administered by the Department of Veterans' Affairs. Vocational training is provided for by the Department of Employment and Industrial Relations.

The Services Canteens Trust Fund

The Services Canteens Trust Fund was established under the *Services Trust Funds Act 1947*. Its funds are derived from the assets and profits of wartime services canteens, mess and regimental funds of disbanded units, and several other sources.

The total amount transferred to the Fund to 31 December 1983 was $11,088,710. The Act prescribed that of this, $5 million and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible veterans, and that the balance of the Fund should be used to provide relief for veterans and their dependants in necessitous circumstances.

The Fund is administered by seven honorary trustees appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of the benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939–45 War or are widows of men who served during the war. The trustees and members of regional committees serve in an honorary capacity.

Assistance from the Fund

Persons eligible for assistance from the Fund are those who, between 3 September 1939 and 30 June 1947, served in the Australian Naval, Military or Air Forces, including members of the canteens staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Forces who served in an official capacity on full-time paid duty, and their dependants.

The trustees have introduced various schemes for providing financial assistance to needy eligible veterans and their dependants. The total cash assistance granted to individuals under all schemes from the inception of the Fund to 31 December 1983 was $17,698,448 ($506,695 during 1983) distributed as follows:

- welfare relief, $6,308,827 ($306,055 during 1983)
- children's education, $10,998,920 ($200,640 during 1983)
- other schemes, $390,977 ($335 during 1983)

For detailed information on the operation of the Fund, reference should be made to the annual reports of the Services Canteens Trust Fund.

DISTRIBUTION OF INCOME

Surveys of incomes have been conducted by the ABS at irregular intervals. In the last such survey, conducted in the period September to November 1982, income was collected both on a last financial year basis, that is in respect of 1981-82, and on a current basis, that is at the time of interview.

As has been customary in such surveys, income was collected in respect of each of the following sources: wages or salaries; own business, trade or profession; government cash benefits; superannuation; interest, rent dividends; other sources. These were then aggregated to arrive at total income.

The survey was designed to enable the production of estimates both for individuals and for groups of individuals such as income units, families and households. Summary results have been released in the following ABS publications: *Income of Individuals, Australia*, 1981-82 (6502.0); *Income of Income Units, Australia* 1981-82 (6523.0). Details of concepts, definitions, etc employed in the survey and observations on the quality and reliability of the data can be found in these publications.

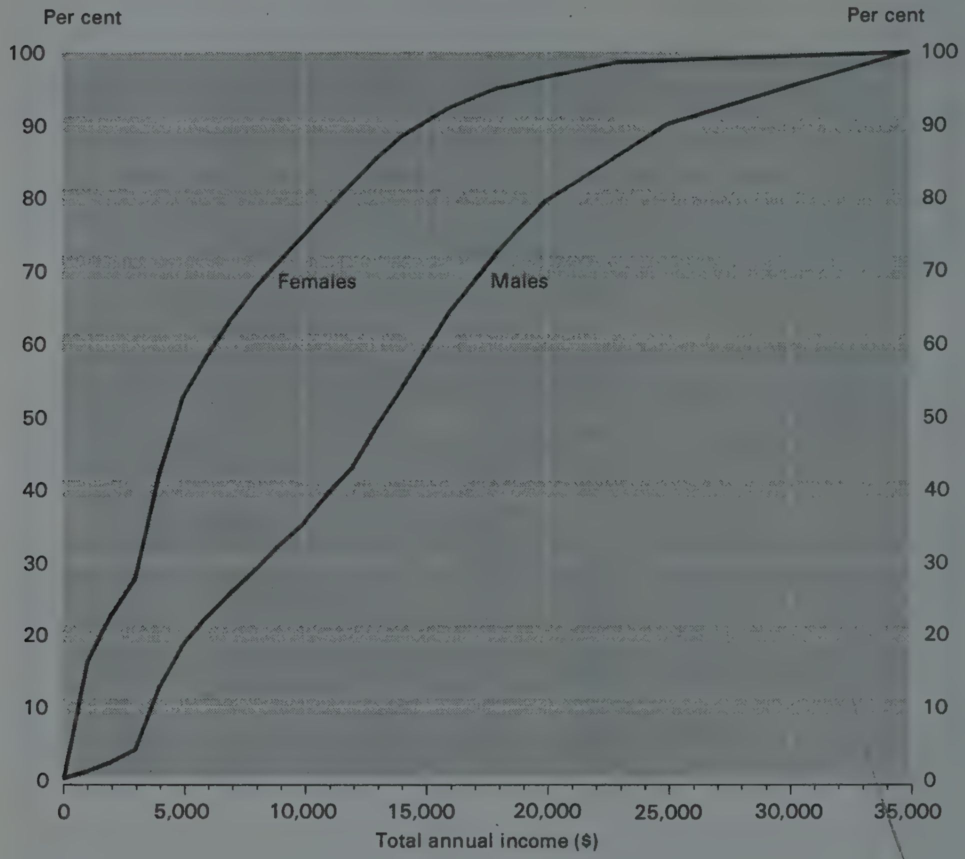
ALL INCOME RECIPIENTS: DECILE CLASSES, INCOME SHARE AND MEAN ANNUAL INCOME, AUSTRALIA, 1978-79, 1981-82

	Males		*Females*		*Persons*			
					Income share (per cent)		*Mean annual income ($)*	
Decile class	*Income share (per cent)*	*Mean annual income ($)*	*Income share (per cent)*	*Mean annual income ($)*	*1978-79*	*1981-82*	*1978-79*	*1981-82*
Lowest	1.8	2,500	0.4	300	0.5	0.5	390	600
2nd	3.0	4,300	1.3	900	2.2	2.4	1,610	2,600
3rd	4.7	6,700	3.6	2,400	3.6	3.6	2,680	3,800
4th	6.9	9.700	5.3	3,500	4.8	4.7	3,540	5,000
5th	8.7	12,200	6.2	4,200	7.0	6.9	5,230	7,200
6th	10.1	14,200	8.0	5,400	9.8	9.5	7,300	10,000
7th	11.5	16,200	11.0	7,400	12.2	12.0	9,080	12,600
8th	13.3	18,700	14.9	10,000	14.5	14.5	10,790	15,100
9th	15.7	22,100	19.2	12,900	17.7	17.8	13,190	18,700
Highest	24.4	34,300	30.1	20,300	27.8	28.1	20,700	29.400
Median annual income ($)		13,200		4,600			6,300	8,500
Mean annual income ($)		14,100		6,700			7,500	10,500
Numbers ('000)		5066.4		4858.6			9590.4	9925.1

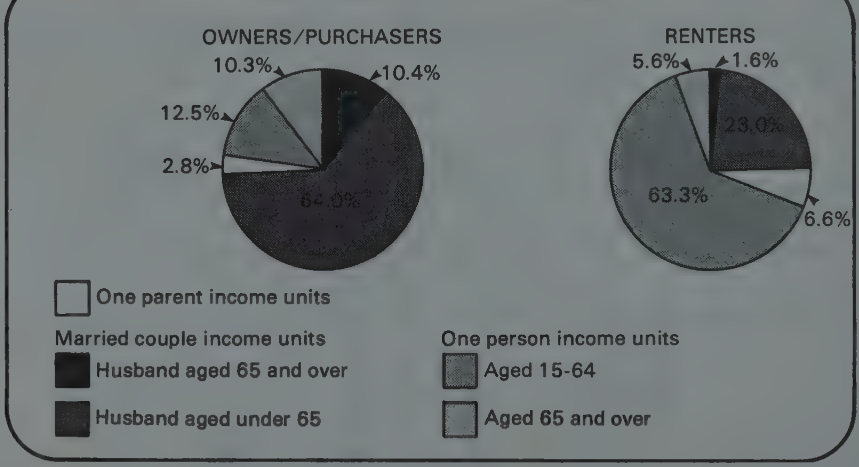
ALL INCOME UNITS: DECILE CLASSES, TYPE OF INCOME UNIT, INCOME SHARE AND MEAN ANNUAL INCOME, AUSTRALIA 1981–82

	Married couple income units								*All income units*			
	With no dependent children		*With dependent children*		*One parent income units*		*One person income units*		*1981–82*		*1978–79*	
Decile class	*Income share (per cent)*	*Mean annual income ($)*	*Income share (per cent)*	*Mean annual income ($)*	*Income share (per cent)*	*Mean annual income ($)*	*Income share (per cent)*	*Mean annual income ($)*	*Income share (per cent)*	*Mean annual income ($)*	*Income share (per cent)*	*Mean annual income ($)*
Lowest	2.6	5,000	2.8	6,500	2.6	2,300	2.0	1,900	1.7	2,700	1.7	2,000
2nd	3.6	6,800	5.3	12,100	4.8	4,300	3.9	3,700	2.9	4,500	2.9	3,300
3rd	4.3	8,100	6.6	15,000	5.7	5,100	4.4	4,200	4.2	6,500	4.2	4,800
4th	5.7	10,800	7.6	17,400	6.2	5,500	5.3	5,100	5.6	8,700	5.8	6,600
5th	7.6	14,300	8.6	19,600	6.9	6,100	7.2	6,800	7.4	11,500	7.6	8,600
6th	9.5	17,900	9.6	21,900	7.9	7,000	9.4	8,900	9.2	14,200	9.3	10,500
7th	11.5	21,700	10.8	24,800	10.0	8,900	11.7	11,100	11.2	17,300	11.3	12,700
8th	13.8	26,000	12.3	28,200	13.0	11,600	13.9	13,200	13.6	21,100	13.8	15,600
9th	16.5	31,100	14.5	33,300	17.0	15,200	16.7	15,900	17.2	26,600	17.0	19,300
Highest	25.0	47,200	22.0	50,500	25.8	22,900	25.4	24,200	27.0	41,700	26.4	29,800
Median annual income ($)		16,000		20,700		6,500		7,800		12,900		9,600
Mean annual income ($)		18,900		22,900		8,900		9,500		15,500		11,300
Numbers ('000)		1,439.8		1,956.1		275.2		2,962.2		6,633.4		6,325.9

CUMULATIVE PERCENTAGE OF INCOME RECIPIENTS AT EACH LEVEL OF INCOME, AUSTRALIA, 1982



ALL INCOME UNITS: TYPE OF INCOME UNIT AND NATURE OF OCCUPANCY, AUSTRALIA, 1982



PLATES 36 and 37

ALL INCOME UNITS: TOTAL ANNUAL INCOME UNIT INCOME, TYPE OF INCOME UNIT, AND NUMBER OF DEPENDENT CHILDREN, AUSTRALIA 1981-82

Total annual income ($)	*Married couple income units*					*One parent income units*				
	No dependent children	*One dependent child*	*Two dependent children*	*Three or more dependent children*	*Total married couple income unit*	*One dependent child*	*Two or more dependent children*	*Total one parent income units*	*One person income units*	*All income units*
	Numbers ('000)									
Under 1,000	9.4	3.2	8.5	4.4	25.6	3.0	3.6	4.7	76.7	107.0
1,000 – 1,999	3.8	*	3.8	5.2	15.0	3.5		5.4	48.7	69.0
2,000 – 2,999	5.5	*	4.0	*	11.9	4.9	3.7	6.4	80.7	99.0
3,000 – 3,499	8.6	*			12.2	5.3		6.8	132.6	151.6
3,500 – 3,999	8.7	*	*	3.1	11.1	8.2		8.9	273.2	293.2
4,000 – 4,499	9.7		*		12.3	10.7	5.7	16.4	285.9	314.7
4,500 – 4,999	9.0	3.9	3.3		14.2	10.8	5.3	16.1	131.5	161.9
5,000 – 5,499	8.1	*		*	13.0	27.3	6.9	34.2	97.0	144.2
5,500 – 5,999	8.8	*	*	*	14.7	8.0	11.7	19.7	76.1	110.6
6,000 – 6,499	80.9	5.8	4.3	5.8	92.3	7.8	13.6	21.4	71.7	185.3
6,500 – 6,999	91.7	8.2	*		107.0	*	10.8	12.6	76.9	196.6
7,000 – 7,499	59.1	12.0	5.4	*	79.1	3.1	6.3	8.0	84.3	171.4
7,500 – 7,999	47.0	7.3	12.5	3.8	70.6		4.8	6.2	62.6	139.4
8,000 – 8,499	49.3	*	9.7	4.6	66.1	3.4	4.6	6.7	76.8	149.6
8,500 – 8,999	31.5	*	5.3	6.9	46.4		5.5	6.9	61.2	114.5
9,000 – 9,499	23.9	8.9	7.3	6.3	46.5	3.3	4.3	7.7	65.3	119.5
9,500 – 9,999	17.1	2.9	*	9.6	32.1	*	*	4.8	60.3	97.2
10,000 – 10,999	41.4	13.6	17.2	12.7	84.8	4.7	3.8	8.6	135.6	229.0
11,000 – 11,999	33.4	13.8	17.2	13.4	77.8	5.8	*	8.3	138.0	224.0
12,000 – 12,999	41.5	17.3	20.0	14.9	93.7	6.5	*	9.0	156.5	259.2
13,000 – 13,999	41.7	24.1	25.6	19.1	110.5	3.7	3.1	6.8	128.5	245.8
14,000 – 14,999	42.7	26.6	31.8	19.2	120.3	3.9	2.9	6.8	109.0	236.1
15,000 – 15,999	43.0	25.5	38.6	20.0	127.1	3.6	3.2	6.8	106.2	240.1
16,000 – 16,999	34.9	21.6	41.0	22.3	119.9	*	3.2	5.7	75.2	200.8
17,000 – 17,999	42.8	20.1	43.1	19.9	126.0	3.0	*	5.4	53.3	184.6
18,000 – 18,999	46.8	28.7	34.9	28.6	139.0	3.6	*	4.3	54.7	198.0
19,000 – 19,999	36.1	25.3	35.3	21.7	118.4		*	*	40.6	160.9
20,000 – 24,999	170.8	93.7	168.3	104.6	537.4	4.7	6.8	11.5	118.7	667.6
25,000 – 29,999	151.8	83.5	110.6	74.7	420.7	4.0	2.5	5.0	48.1	473.9
30,000 – 34,999	96.1	54.9	71.4	42.9	265.2			*	17.3	284.0
35,000 – and over	144.7	77.7	94.3	68.4	385.2	*	*	*	19.0	405.0
Total	**1,439.8**	**594.4**	**822.9**	**538.7**	**3,395.9**	**150.4**	**124.8**	**275.2**	**2,962.2**	**6,633.4**

* Subject to sampling variability too high for most practical uses.

ALL INCOME UNITS: INCOME UNIT TYPE, NATURE OF OCCUPANCY AND CURRENT MEAN WEEKLY INCOME, AUSTRALIA 1982

	Owners/purchasers			*Renters*					
Income unit type	*Owners*	*Purchasers*	*Total*	*Government landlord*	*Private landlords*	*Other landlords*	*All renters*	*Living rent-free*	*Total*
				NUMBERS ('000)					
Married couple income units—									
Husband aged 65 years and over	351.4	32.2	383.6	18.8	15.6	6.0	40.3	15.3	439.2
Husband aged under 65 years—									
With no dependent children	450.8	378.6	829.4	30.0	143.2	30.6	203.9	33.6	1,066.9
With dependent children	462.2	1,069.9	1,532.0	89.7	221.7	75.3	386.7	56.4	1,975.1
One parent income units—									
Male	6.1	12.5	18.6	3.2	5.6	4.1	12.9	2.3	33.8
Female	36.3	48.4	84.7	46.8	72.1	37.1	156.0	21.1	261.8
One person income units—									
Aged 15–24 years	5.8	14.1	20.0	4.3	270.6	753.4	1,028.3	330.3	1,378.5
25–64 years	249.3	192.3	441.6	32.5	323.6	239.8	595.9	160.0	1,197.5
65 years and over	359.0	21.0	380.0	43.4	41.5	58.8	143.7	76.6	600.3
All income units	**1,920.9**	**1,769.0**	**3,689.9**	**268.7**	**1,094.0**	**1,205.0**	**2,567.7**	**695.5**	**6,953.1**
				MEAN WEEKLY INCOME ($)					
Married couple income units—									
Husband aged 65 years and over	217	195	216	140	143	172	146	193	208
Husband aged under 65 years—									
With no dependent children	386	506	441	315	443	525	437	374	438
With dependent children	465	485	479	335	380	453	384	368	457
One parent income units—									
Male	288	359	336	204	244	272	243	300	298
Female	200	209	205	140	157	144	149	132	166
One person income units—									
Aged 15–24 years	224	302	279	124	206	178	185	127	173
25–64 years	193	312	245	138	255	247	246	228	243
65 years and over	116	133	117	90	111	95	98	101	111
All income units	**294**	**451**	**370**	**217**	**279**	**213**	**242**	**181**	**303**

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CHAPTER 10

HEALTH

This chapter is primarily concerned with the activities of the Commonwealth relating to health. There is, however, government responsibility for health at the State and local levels. There are constitutional limits on the Commonwealth Government's role in the health care field, and the primary responsibility for planning and provision of health services is with the State and Territory Governments.

At the national level, health services in Australia are controlled by the Commonwealth Government. The Government appoints a Minister for Health, who exercises political control over the Commonwealth Department of Health, headed by the Director-General. The Commonwealth Government is primarily concerned with the formation of broad national policies, and influences policy making in health services through its financial arrangements with the State and Territory Governments, through the provision of benefits and grants to organisations and individuals, and through the regulation of health insurance.

The direct provision of health services, broadly speaking, is the responsibility of the State Governments. Each of the States and the Northern Territory has a Minister of Health who is responsible to the government of his particular State or Territory for the administration of its health authorities. In some States, the responsibility for health services is shared by several authorities whilst in others, one authority is responsible for all these functions.

Health care is also delivered by local government, semi-voluntary agencies, and profit making non-governmental organisations.

Capital Territory Health Commission.

In addition to its national responsibilities, the Commonwealth Government, through the Capital Territory Health Commission, has special responsibility for health services in the Australian Capital Territory. The Commission, which is primarily funded through Commonwealth appropriations, has the statutory role of providing and monitoring health services in the A.C.T.

Health services provided by the Commission include:

- Hospital services.

The Commission operates Royal Canberra and Woden Valley Hospitals within the A.C.T. public hospital system. These hospitals offer an extensive range of general and speciality medical services. Calvary Hospital and the Queen Elizabeth II Home for Mothers and Babies are funded through the Commission's grant-in-aid program, and function within the public hospital system.

- Community services

The Commission is responsible for health care delivery in the community, including health centres (eleven as at 30 June 1984), child health clinics and home nursing services. Other community health services provided by the Commission include ambulance services, health education, school dental and speech therapy services, health and pharmaceutical inspection services, and services associated with occupational health and safety. The Commission also provides a range of programs to service the mental health needs of the community, and the special health needs of other groups in the community such as the elderly and physically handicapped.

At 30 June 1984, the Commission had a staff of 3,537 full-time and 793 part-time employees.

Further information about the operations of the Commission and the services it provides is contained in Commission annual reports.

COMMONWEALTH HEALTH BENEFITS AND ASSISTANCE

Medicare

Details of the health financing arrangements under the Medicare program introduced by the Commonwealth Government in February 1984 are available in Year Book 68—1984.

Since the introduction of the Medicare program the income thresholds on which the levy is payable have been revised. From 1 July 1984 no levy was payable by single people earning $7,110 per annum or less or by married couples and sole parents with a combined income of $11,803 per annum or less, with a further $1,330 per annum allowed for each dependent child. With effect from 1 November 1984 the maximum levy payable is reached where a single or combined husband and wife taxable income is $75,000 per annum.

"Shading-in" arrangements apply in respect of persons with taxable incomes marginally above the threshold.

Medical Benefits

The Health Insurance Act provides for a Medical Benefits Schedule which lists medical services and the Schedule (standard) fee applicable in each State in respect of each medical service. The Schedule covers services attracting Medicare Benefits rendered by legally qualified medical practitioners, certain prescribed medical services rendered by approved dentists in the operating theatres of approved hospitals, and optometrical consultations by participating optometrists. Schedule fees are set and updated by an independent fees tribunal which is appointed by the Government. The fees so determined are to apply for Medicare benefits purposes. Medical services in Australia are generally delivered by either private medical practitioners on a fee-for-service basis, or medical practitioners employed in hospitals.

Where a medical service is provided by a private medical practitioner on a fee-for-service basis, Medicare refunds 85 per cent of the Medical Benefits Schedule fee cost or, the Schedule fee less $10, whichever is the greater. It is not possible to insure with private health insurance organisations to cover the 15 per cent 'gap'. However, should an individual accumulate 'gap' payments in excess of $150 per year, Medicare will pay benefits at 100 per cent of the Schedule fee.

Under Medicare, medical practitioners are able to direct bill for any patient. In such cases, they receive the Medicare benefit as full payment. Previously, direct billing was limited to services rendered to eligible Pensioner Health Benefit and Health Care Cardholders, and their dependants.

Hospital Care

From 1 February 1984, basic public hospital services have been provided free of charge. Through Medicare grants to the States the cost of out-patient treatment and inpatient accommodation and care in a shared ward by a doctor employed by a hospital are covered. The scheme does not cover the cost of private accommodation in a public hospital, charges for private hospital treatment, nor care in a public hospital by a doctor of the patient's choice. It is possible however for persons to take out insurance with private health funds to cover these situations.

Patients who are accommodated in either private or public hospitals for extended periods and who are, in essence, nursing home type patients, are required to make a non-insurable patient contribution in the same way that a patient in a nursing home does. For a private patient in a public hospital, private health fund benefits are reduced to the level of the standard nursing home benefit. In a private hospital, the fund benefits are reduced by the amount of the patient contribution.

Under Medicare, the amended arrangements provide that the period of time of continuous hospitalisation before classification as a nursing home type patient has been reduced from 60 to 35 days.

Where a patient's doctor considers that a patient has continuing need for acute hospital care, the doctor may issue a certificate under section 3B of the Health Insurance Act to that effect, and the nursing home type patient arrangements do not apply. The new arrangements provide for a review mechanism in the form of the Acute Care Advisory Committee which may review such certificates and recommend that they be affirmed, varied or revoked.

Private Hospitals

Since 1 February 1984 both the Commonwealth bed day subsidy and the hospital insurance benefit for private hospital accommodation have been paid according to a system of classification consisting of three categories:

Category 1 hospitals receive a $120 basic private fund benefit and a $40 Commonwealth daily bed subsidy;

Category 2 hospitals receive a $100 basic private fund benefit and a $30 Commonwealth daily bed subsidy; and

Category 3 hospitals receive a $80 basic private fund benefit and a $20 Commonwealth daily bed subsidy.

Private hospitals are classified into the three categories according to the services and facilities provided. Those hospitals with more sophisticated services and facilities attract a higher level of insurance benefit and Commonwealth bed day subsidy.

Commonwealth payments under this program increased from $86.5m in 1982–83 to $103.6m in 1983–84, reflecting the increased commitment under Medicare. The full year estimate under Medicare is $140m.

The States have the primary responsibility for the arrangement and provision of health services within their respective States. In recognition of this, the relevant Commonwealth legislation requires the Commonwealth Minister for Health to consult with his counterparts in the States and have regard to their views in respect of the major issues affecting private hospitals, such as approvals to build or extend, categorisation criteria, determination of the initial category of individual hospitals and proposals to change the categories determined for individual hospitals.

Commonwealth Nursing Home Benefits

There are two forms of Commonwealth benefit payable in respect of patients accommodated in premises approved as nursing homes under the National Health Act. These benefits are as follows:

(a) **Basic Nursing Home Benefit**

The Commonwealth pays basic nursing home benefits in respect of all qualified nursing home patients other than those who are entitled to damages or compensation. Basic benefit levels are reviewed and adjusted annually in each State to a level whereby the fees charged in respect of 70 per cent of beds in non-Government nursing homes, approved under the National Health Act, (i.e. participating nursing homes) are covered by the sum of the benefit plus statutory minimum patient contribution (explained below). As at 1 November 1984, the maximum amount of basic nursing home benefit payable per day in each State and Territory was: New South Wales and Australian Capital Territory $33.35; Victoria $48.50; Queensland $28.10; South Australia and Northern Territory $39.05; Western Australia $27.55; and Tasmania $27.80.

(b) **Commonwealth Extensive Care Benefit**

The Commonwealth extensive care benefit is payable at the rate of $6 a day, in addition to the Commonwealth basic benefit, in respect of patients who need and receive 'extensive care' as defined in the National Health Act. Application must be made for payment of the extensive care benefit. As in the case of the Commonwealth basic benefit, the extensive care benefit is only payable in respect of qualified patients who are not entitled to damages or compensation.

Minimum Patient Contribution

All participating nursing home patients are normally required to make a statutory minimum contribution towards the cost of their accommodation in the nursing home. Patients are required to make this contribution towards the cost of their accommodation and care in recognition of those costs which would otherwise be incurred outside the nursing home in any alternative long-term residence.

The statutory minimum patient contribution at 1 November 1984 was $12.75 a day.

Where the fees charged by a participating nursing home are in excess of the combined total of nursing home benefits plus the statutory minimum patient contribution, the difference must be met by the patient. Conversely, where the nursing home fee is less than this combined total, the basic benefit paid by the Commonwealth is reduced by that amount.

Fees charged to patients in Government nursing homes are determined by State Governments. Patients in these homes also attract basic and extensive care benefits from the Commonwealth Government, and the patient contribution is usually about the same as the statutory minimum patient contribution described above.

Deficit Financing Arrangements

As an alternative to the provision of Commonwealth nursing home benefits under the National Health Act (as outlined above), the *Nursing Homes Assistance Act* 1974 provides for direct funding of nursing homes conducted by local government and charitable and benevolent organisations.

Under the deficit financing arrangements the Commonwealth meets the approved operating deficits and the cost of approved asset replacements of these nursing homes. Financial assistance is provided by way of monthly advances based on a budget approved by the Commonwealth Department of Health. An annual settlement is effected when audited financial statements are forwarded to the Department.

Nursing homes wishing to participate in the deficit financing arrangements must enter into a formal agreement with the Commonwealth Government for that purpose. Patients in deficit-financed nursing homes are required to pay a prescribed fee equivalent to the statutory minimum patient contribution, although provision exists to reduce this contribution in appropriate cases such as homes caring for children. Higher fees are prescribed for patients entitled to damages or compensation.

APPROVED NURSING HOMES AND BEDS—STATES AND TERRITORIES, 30 JUNE 1984

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved nursing homes—									
Deficit financed(*a*)	133	73	72	58	28	28	1	–	393
Government(*b*)	32	75	22	5	25	5	1	2	167
Other(*c*)	353	238	112	94	70	18	2	2	889
Total	**518**	**386**	**206**	**157**	**123**	**51**	**4**	**4**	**1,449**

APPROVED NURSING HOMES AND BEDS—STATES AND TERRITORIES, 30 JUNE 1984—*continued*

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Beds in—									
Deficit financed nursing homes	6,590	2,950	3,656	2,703	1,230	904	55	–	18,088
Government nursing homes	3,384	5,260	2,485	1,141	1,810	840	24	274	15,218
Other nursing homes	19,489	7,951	5,883	3,536	3,573	629	50	166	41,277
Total	**29,463**	**16,161**	**12,024**	**7,380**	**6,613**	**2,373**	**129**	**440**	**74,583**
Beds per 1000 population	*5.5*	*4.0*	*4.8*	*5.5*	*4.8*	*5.4*	*0.9*	*1.8*	*4.8*

(*a*) Deficit financed homes approved under the Nursing Homes Assistance Act for the payment of their approved operating deficits. (*b*) Government homes approved under the National Health Act for the payment of nursing home benefits. (*c*) Private profit and voluntary non-profit homes approved under the National Health Act for the payment of nursing home benefits.

Source: Commonwealth Department of Health.

Other Commonwealth Nursing Benefits

Domiciliary Nursing Care Benefit

The Commonwealth Government provides a Domiciliary Nursing Care Benefit to assist people who choose to care, in their own homes, for chronically ill or infirm relatives who would require admission to a nursing home if this care in their own home was not available. Patients who qualify for this Benefit are, typically, those people who are incapable of caring for themselves and of being left unsupervised for any significant period.

The basic criteria for the payment of the Benefit are that the patient must be aged 16 years or over and be in need of and in receipt of continuing care, and also be receiving regular visits by a registered nurse. The Benefit is payable at the rate of $42 per fortnight.

Home Nursing Subsidy Scheme

See also Special Article *History of Home Nursing in Australia*, at the end of this chapter.

The Scheme was introduced in 1956 to encourage the growth and development of home nursing services in Australia. The subsidy is paid in respect of each eligible nurse employed. An organisation must be a non-profit service to be eligible for the subsidy.

It is a condition of subsidy that the State and/or local government provide at least matching assistance. If they pay less the Commonwealth subsidy is reduced accordingly. During 1983–84, subsidies totalling $22.8m were paid to 199 approved organisations providing home nursing services in the States.

Other Commonwealth Benefits Schemes

Assistance to Isolated Patients

The *Isolated Patients Travel and Accommodation Assistance Scheme*, which is wholly funded by the Commonwealth Government, provides partial financial assistance to residents of isolated areas required to travel in excess of 200 kilometres to obtain medical treatment from the nearest suitable specialist medical practitioner. Benefits are also available for journeys associated with certain medical services provided in hospitals by oral surgeons and in respect of orthodontic and associated dental care to cleft lip and palate patients under 22 years of age. In 1983–84 Government expenditure on the Scheme totalled $11.79m assisting some 116,000 people. An amount of $15.0m has been allocated for 1984–85.

Tuberculosis

An arrangement between the Commonwealth and the States under which the Commonwealth reimbursed the States for all approved capital expenditure on tuberculosis and for net maintenance expenditure to the extent that it exceeded that for 1947–48 was discontinued from 31 December 1976. The National Tuberculosis Advisory Council, however, has been retained to keep abreast of advances and to advise the Minister for Health and, through him, the State Ministers for Health on the best means of prevention, diagnosis and control of tuberculosis. There are eleven members of the Council, the chairman being the Director-General of the Commonwealth Department of Health.

To reduce the spread of infection the Commonwealth Government pays allowances to persons suffering from infectious tuberculosis so that they may give up work and undergo treatment. Commonwealth Government Expenditure on Tuberculosis Allowances over the last three years has been $1,103,200 in 1981–82, $945,630 in 1982–83 and $823,682 in 1983–84.

Pharmaceutical Benefits Scheme

Under the Pharmaceutical Benefits Scheme, assistance is provided towards the cost of a comprehensive range of drugs and medicines to persons receiving treatment from a medical practitioner. From 1 April 1979, the Scheme was expanded to allow dentists, who are approved as participating dental practitioners, to prescribe a limited range of drugs for dental treatment of their patients. The drugs and medicines are supplied by an approved chemist upon presentation of a prescription from the patient's medical or dental practitioner, or by an approved hospital to patients receiving treatment at the hospital.

From 1 January 1983 patient contribution arrangements are applicable as follows:

- *free of charge*—pensioners with Pensioner Health Benefits cards and their dependants receive benefit items free of charge;
- *$2 per benefit item*—people in special need who hold Health Care cards and their dependants, and those Social Security pensioners and Veterans' Affairs service pensioners who do not hold a PHB card and their dependants, pay a contribution of $2 per benefit item;
- *$4 per benefit item*—all other people pay a contribution of $4 per benefit item.

Under the Pharamecutical Benefit Scheme the total cost, including patient contribution of prescriptions processed for payment was $591.5 million in 1982–83 and $649.6 million in 1983–84. These figures do not include benefits supplied by certain hospitals and miscellaneous services or retrospective adjustments of chemists' remunerations.

BENEFIT PRESCRIPTIONS AND COST OF MORE FREQUENTLY PRESCRIBED DRUG GROUPS, AUSTRALIA, 1983–84

	Benefit prescriptions		*Total cost of benefit prescriptions(a)*	
Drug group	*Number*	*Percentage of total*	*Amount*	*Percentage of total*
	'000	%	$'000	%
Analgesics	14,229	13.05	80,030	12.32
Diuretics	9,311	8.54	44,204	6.80
Heart—Drugs acting on	8,434	7.73	75,216	11.58
Penicillins	7,633	7.00	44,029	6.78
Bronchial spasms—Preparations for	7,089	6.50	44,300	6.82
Anovulants	5,585	5.12	26,175	4.03
Blood vessels—Drugs acting on	4,502	4.13	39,448	6.07
Tetracyclines	4,109	3.77	24,399	3.76
Tranquillisers	4,059	3.72	17,607	2.71
Sulphonamides	3,953	3.62	19,977	3.08
Antidepressants	3,598	3.30	16,633	2.56
Hypnotics and sedatives	2,785	2.55	9,839	1.51
Eye Drops	2,615	2.40	14,120	2.17
Antacids	2,447	2.24	10,548	1.62
Erythromycin	2,417	2.22	13,108	2.02
Water and electrolyte replacement	2,377	2.18	12,668	1.95
Skin sedative applications	2,373	2.18	9,788	1.51
Vagina-urethra—Drugs acting on	1,852	1.70	9,486	1.46
Antihistamines	1,640	1.50	6,172	0.95
Anti-emetics	1,358	1.25	4,788	0.74
Expectorants—cough suppressants	1,317	1.21	4,416	0.68
Skin fungicides	3,316	1.21	7,204	1.11
Other drug groups	14,064	12.88	115,433	17.77
Total	**109,063**	**100.00**	**649,588**	**100.00**

(*a*) Includes patients' contributions. Excludes Government expenditure in relation to pharmaceutical benefits provided through miscellaneous services.

Source: Commonwealth Department of Health.

Program of Aids for Disabled People

The principal aim of the Program of Aids for Disabled People (PADP) is to enable people with disabilities of a permanent or indefinite duration to live more independently in a domestic situation, with a consequent reduction in demand for more costly institutional care. Under the program, certain aids to daily living including wheelchairs, surgical shoes, braces, splints, calipers, surgical wigs, aids for incontinence, walking aids, and basic home modifications (ramps, hand rails, door widenings, etc.) may be provided to eligible people. PADP, which is wholly funded by the Commonwealth, is operated through health services networks administered by the State and Territory health authorities which are responsible for the day to day operation of the Program, including the purchase and issue of aids.

Summary of personal benefit payments

For an analysis by purpose and economic type of expenditure by all Commonwealth Government authorities *see* Chapter 22, Public Finance.

Most Commonwealth Government health benefits are financed through the National Welfare Fund and the Health Insurance Commission. The following table shows personal benefit payments by Commonwealth Authorities for 1982–83.

COMMONWEALTH AUTHORITIES: PERSONAL BENEFIT PAYMENTS—HEALTH 1982–83 ($'000)

	N.S.W. *(a)*	*Vic.*	*Qld*	*S.A.* *(a)*	*W.A.*	*Tas.*	*N.T.* *(a)*	*A.C.T.* *(a)*	*Total*
Hospital and clinical services—									
Hospital benefits reinsurance	53,109	26,701	12,397	6,675	954	—	—	—	99,836
Private hospital daily bed payments	23,600	24,642	16,987	8,668	8,219	2,487	855	1,034	86,492
Nursing home benefits	265,000	208,000	101,000	83,000	54,000	20,000	—	—	731,000
Total	*341,709*	*259,343*	*130,384*	*98,343*	*63,173*	*22,487*	*855*	*1,034*	*917,328*
Other health services—									
Medical benefits	395,190	213,918	132,614	81,939	68,192	20,942	746	3,268	916,809
Isolated patients travel and accommodation assistance	1,903	400	3,040	774	1,436	446	1,200	—	9,199
Pharmaceutical benefits for pensioners	117,123	67,675	43,941	24,233	21,350	7,483	323	1,681	283,809
Pharmaceutical benefits, n.e.c.	56,706	38,325	21,732	11,426	11,772	3,503	572	2,422	146,458
Domiciliary care	8,173	5,685	4,273	1,839	1,967	1,431	—	—	23,368
Tuberculosis campaign allowances	230	433	206	20	14	13	24	6	946
Rehabilitation of ex-servicemen	673	349	183	24	90	33	—	69	1,421
Total	*579,998*	*326,785*	*205,989*	*120,255*	*104,821*	*33,851*	*2,865*	*7,446*	*1,382,010*
Total health	**921,707**	**586,128**	**336,373**	**218,598**	**167,994**	**56,338**	**3,720**	**8,480**	**2,299,338**

(*a*) State totals for New South Wales and South Australia also include most of the unallocatable expenditure on personal benefit payments to residents in the Australian Capital Territory and the Northern Territory respectively.

Commonwealth Government subsidies and grants to States

General Revenue Grants

The Commonwealth provides untied identifiable health grants within general revenue grants to the States and the Northern Territory as a contribution towards the cost of health programs. These arrangements, which are authorised by the States (Tax Sharing and Health Grants) Act 1981, are designed to replace previous specific purpose health payments for public hospital operating costs (under expired Hospital Cost Sharing Agreements), community health and school dental service programs and apply fully to all States.

Medicare Grants to the States

Under the Medicare program, all States (including South Australia and Tasmania), the Northern Territory and the Australian Capital Territory, have been compensated by Medicare grants outside the identified health grants and tax sharing arrangements for:

- revenue losses and additional medical costs directly attributable to the provision of free public hospital accommodation and treatment; and
- a reduction to $80 per day in the fee charged for those persons who seek 'doctor of choice' or private ward accommodation in public hospitals.

As part of the Medicare arrangements the hospital cost sharing arrangements between the Commonwealth and South Australia and Tasmania terminated on 1 February 1984 and have been funded thereafter on the same basis as other States. Commonwealth hospital payments to both States in 1983-84 have, therefore, comprised:

- specific purpose assistance (hospital cost sharing agreements) for the period 1 July 1983 to 31 January 1984;

- since 1 February 1984, an additional component to their existing identified health grants (in respect of the community health program and school dental scheme) equal to the amount of grants they would otherwise have received had the cost sharing agreements continued; and
- since 1 February 1984, additional Medicare grants as outlined above.

The Medicare grants to the States and Northern Territory also include an additional community health component to restore the level of Community Health Grants to 1975-76 levels in real terms.

Under the Medicare arrangements, Queensland also received an additional special public hospital payment of $15m in 1983-84.

Paramedical services

The *States Grants (Paramedical Services) Act* 1969 provides for the Commonwealth Government to share on $1 for $1 basis with participating States the cost of approved paramedical services such as chiropody, occupational therapy, physiotherapy and speech therapy provided wholly or mainly for aged persons in their homes. Matching grant payments during 1983-84 amounted to $1,412,000.

Commonwealth Government subsidies and grants to organisations

Health Program Grants

Health Program Grants are lump sum payments to approved organisations in respect of the costs incurred by those organisations in providing approved health services. The grants were first introduced in 1975 with the intention of establishing a scheme for funding a wide range of health services on other than a fee-for-service basis. The scheme underwent several modifications in later years to allow for the provision of charges to be imposed, where appropriate, for services rendered to privately insured patients.

Since 1 February 1984, there has been a return to the original concept of health program grants in that they now cover the entire costs incurred by approved health services, and no charges are raised for those services.

Community Health Program—National Projects

Under the National Community Health Program, the Commonwealth provides funding to organisations in respect of specific activity which has been approved for the purpose of the Program.

The largest of these projects is the Family Medicine Program (FMP) of the Royal Australian College of General Practitioners, which provides vocational training for young doctors who intend to enter general practice. The trainees receive their training through attachments to participating private general practitioner practices and by attendance at educational events organised by the FMP.

The other national projects are either national co-ordinating secretariats of voluntary non-profit organisations operating in more than one State or specific health-related projects which have national application.

Under the Medicare arrangements which commenced on 1 February 1984, the Commonwealth government expressed a renewed interest in community health services and provided block grants to the States and Territories for new and expanded community health services within their borders. These grants amounted to $7.3m in 1983–84 and $18.0m in 1984–85.

For new projects at the national level, the Government also provided a further $0.8m in 1983–84 and $2.0m in 1984–85.

Other Grants and Subsidies

The Commonwealth Government gives financial assistance to certain organisations concerned with public health. Examples of organisations included in this category are:

The *Royal Flying Doctor Service* is a non-profit organisation providing medical services in remote areas of Australia. It is distinct from, but co-ordinates with, the Aerial Medical Service which, while formerly operated by the Commonwealth Department of Health, has been operated by the Northern Territory Government since 1 January 1979. The Royal Flying Doctor Service is financed mostly from donations and government contributions. For the year ended 30 June 1984 the Commonwealth Government paid grants totalling $5,158,000 towards operational costs and assistance of $490,000 towards an approved program of capital expenditure.

The *Red Cross Blood Transfusion Service* is conducted by the Australian Red Cross Society throughout Australia. The operating costs of the Service in the States and the Northern Territory are met by the State Governments and the Northern Territory Government paying 60 per cent, the Society 5 per cent of net operating cost or 10 per cent of donations, whichever is the lesser, and the Commonwealth Government meeting the balance. Approved capital expenditure by the Service is shared on a $1 per $1 basis with the States and the Northern Territory Government. Commonwealth

Government expenditure for each State and the Northern Territory during 1983-84 was $11,630,000, made up as follows: New South Wales, $3,101,941; Victoria, $3,854,289; Queensland, $1,578,023; Western Australia, $1,267,600; South Australia, $1,338,815; Tasmania, $342,364; and Northern Territory, $146,968.

The *National Heart Foundation of Australia* is a voluntary organisation, supported almost entirely by public donations, established with the objective of reducing the toll of heart disease in Australia. It approaches this objective by programs sponsoring research in cardiovascular disease, community and professional education directed to prevention, treatment and rehabilitation of heart disease and community service programs including rehabilitation of heart patients, risk assessment clinics and surveys and documentation of various aspects of heart disease and treatment of heart disease in Australia. The Foundation's income in 1983 was $7,581,706 of which $6,538,277 was from public donations and bequests. Federal, State and Semi-Government authorities made grants of $106,359 for specific projects conducted by the Foundation. Since the inception of the Foundation research has been a major function and a total of $18,429,000 has been expended in grants to university departments, hospitals and research institutes and for fellowships tenable in Australia and overseas. It is notable however that with increasing opportunities for prevention and control of heart disease, the Foundation's education and community service activities are increasing significantly. In 1983 the expenditure on research was $2,357,217 while expenditure on education and community service was $1,825,766.

The *World Health Organization* (WHO) is a specialised agency of the United Nations having as the objective the attainment by all peoples of the highest level of health. Australia is assigned to the Western Pacific Region, the headquarters of which is at Manila and is represented annually at both the World Health Assembly in Geneva and the Regional Committee Meeting in Manila. Australia's contribution to WHO for 1983-84 was $4,359,599.

The *International Agency for Research on Cancer* (IARC) was established in 1965 within the framework of the World Health Organization. The headquarters of the Agency are located in Lyon, France. The objectives and functions of the Agency are to provide for planning, promoting and developing research in all phases of the causation, treatment and prevention of cancer. Australia's contribution to the IARC for 1983-84 was $713,474.

National Health Services and Advisory Organisations

The Australian Health Services Council

A national council, the Australian Health Services Council, together with bilateral Commonwealth/State Health Committees, was established under the Medicare Agreements between the Commonwealth and the States.

The Council and the Committees report to the respective Health Ministers and provide advice on policy and administrative and financial arrangements. The Council and the Committees endeavour to apply principles aimed at achieving operating economies in recognised hospitals and central services consistent with maintaining or achieving an acceptably high standard of health care.

The Health Committees also consider adjustments to Commonwealth and State health programs that may be in the mutual interests of the Commonwealth and the States.

Health Services Organisations

The *Commonwealth Department of Health Pathology Laboratory Service* provides clinical diagnostic and investigational facilities at laboratories situated in Albury, Bendigo, Cairns, Hobart, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. Their primary role is to assist medical practitioners in the diagnosis of illness and disease and to provide facilities for investigations into public health and aspects of preventive medicine. During 1983-84, these laboratories carried out approximately 6.4 million pathology tests and investigations in respect of 0.8 million patient requests.

The *Commonwealth Serum Laboratories Commission* (CSL) produces pharmaceutical products for human and veterinary use and is one of Australia's foremost scientific institutes. The Commission's main function is to produce and sell prescribed pharmaceutical products used for therapeutic purposes and to ensure the supply of essential pharmaceutical products in accordance with national health needs. The Commission's functions also include research and development relating to many kinds of human and veterinary diseases covering the fields of bacteriology, biochemistry, immunology and virology. The Commission's laboratories and central administration are located at Parkville, Victoria, with storage and distribution facilities in all States.

For over sixty years, CSL has been Australia's chief supplier of biological medicines, insulins, vaccines, human blood fractions, Bacillus Calmette-Guerin (BCG) and an increasing range of veterinary pharmaceutical products needed by Australia's sheep, cattle, pig and poultry industries. The role of CSL has expanded as a result of amendments to the CSL Act from 1 July 1980 that allow CSL to produce, buy, import, supply, sell or export prescribed pharmaceutical products (either of a biological or non-biological nature).

'The *Australian Radiation Laboratory* is concerned with the development of national policy relating to radiation health. The Laboratory

- undertakes research and development in the fields of ionising and non-ionising radiations which have implications for public and occupational health;
- formulates policy by developing codes of practice and by undertaking other regulatory, compliance, surveillance and advisory responsibilities at the national level with respect to public and occupational health aspects of radiation; and
- maintains national standards of radiation exposure and radioactivity.'

The *National Acoustic Laboratories* undertake scientific investigations into hearing and problems associated with noise as it affects individuals, and advise Commonwealth Government Departments and instrumentalities on hearing conservation and the reduction of noise. A free audiological service is provided for pensioners with medical benefit entitlements and their dependants, persons under 21, war widows, Social Security rehabilitees and Veterans' Affairs patients. During 1983–84 the number of appointments provided was 167,737 and the number of hearing aids fitted was 59,610.

The *Ultrasonic Institute* conducts research and provides advisory services on the use of ultrasonic radiation in the diagnosis and treatment of disease. The Institute is recognised as a world leader in its field.

Commonwealth Government health advisory organisations

The *National Health and Medical Research Council* advises the Commonwealth Government and State Governments on matters of public health legislation and administration, on matters concerning the health of the public and on medical research. It also advises the Commonwealth Government and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition. The Council advises the Commonwealth Minister for Health on the application of funds from the Medical Research Endowment Fund which provides assistance to Commonwealth Government Departments, State Departments, Universities, Institutions and persons for the purposes of medical research and for the training of persons in medical research. The Commonwealth Government makes annual appropriations to the fund. Expenditure for 1983–84 was $37.979 million. The secretariat for the Council and its Committees is provided by the Commonwealth Department of Health and is located in Canberra.

The *Commonwealth Institute of Health* is located in the University of Sydney, and is a multidisciplinary national health resource, which undertakes teaching, research and consultation towards preserving health and preventing disease or injury in groups of people in the Australian community, the workplace and in tropical and developing countries. The Institute's academic functions are under the direction of the University, whilst its various training, research and consultative roles are maintained by the Commonwealth Department of Health, which funds the Institute's activities.

The Institute has an important role as a resource and data collection centre for the nation and is endeavouring to promote health and a better understanding of health care, and its delivery, throughout Australia and neighbouring countries. In July 1984 the Torres Strait Malaria Field Station was officially opened by the Director-General of Health. The field station is a laboratory and field station base, for assistance to Queensland in malaria vigilance activities in North Queensland, and a training facility for health personnel and students in malaria procedures. The field station is managed by the Commonwealth Institute of Health. Costs for the field station, paid by the Commonwealth Government during 1983–84 were $49,840.00 for administration and $74,990.00 for plant and equipment.

The Asbestos Assessment Program, for public health risk in buildings containing asbestos products, is now providing expert advice on matters relating to health aspects for occupants of those buildings, and technical advice on correct methods of containment and removal of asbestos products. Four new staff members were recruited during early 1984 to act as service consultants to Government and industry.

Postgraduate and undergraduate training is provided at the Institute in a wide range of public health specialities. The largest programme conducted is the Master of Public Health degree course, which offers options in Public Health, Occupational Health and Tropical Health.

Administration costs for the Institute during 1983–84 totalled $3,652,488.00, and plant equipment expenses totalled $186,620.00 (including $34,630.00 for Asbestos Assessment).

The *National Biological Standards Laboratory*, including the *Australian Dental Standards Laboratory*, is responsible for the development of standards for therapeutic goods and for testing such products for compliance with standards to ensure that they are safe, pure, potent and efficacious. Other responsibilities, including the inspection of manufacturing premises, the evaluation of new and modified products and the investigation of complaints, make it the linchpin of a uniform national system of control over therapeutic goods.

The British Pharmacopoeia is the primary source of standards under the Therapeutic Goods Act. In addition, the Minister has powers to make orders specifying standards for general classes of goods and specific goods which are imported, the subject of interstate trade or supplied to the Commonwealth Government. Policy on standards for therapeutic goods is developed by the Therapeutic Goods Standards Committee, which is a statutory committee, and is implemented by the National Biological Standards Laboratory. The Therapeutic Goods Advisory Committee, which is also a statutory committee, advises the Minister on standards and their implementation.

The Laboratory, jointly with State officials and the pharmaceutical industry, prepares and revises an Australian Code of Good Manufacturing Practice which is the criterion employed by inspectors for the licensing of pharmaceutical manufacturers.

The Laboratory has Sections which deal with viral products, bacterial products, pharmaceutical products, antibiotics and pharmacology, testing dental products and some medical devices.

The *Australian Drug Evaluation Committee* makes medical and scientific evaluations both of such goods for therapeutic use as the Minister for Health refers to it for evaluation and of other goods for therapeutic use which, in the opinion of the Committee, should be so evaluated. It advises the Minister for Health as it considers necessary on matters relating to the importation into, and the distribution within, Australia of goods for therapeutic use that have been the subject of evaluation by the Committee. It has the powers to co-opt and seek advice from specialist medical colleges and associations and from the medical and allied professions, drug manufacturers and other sources. During 1983–84 fifty-one applications for approval to market new drugs and thirty-three applications to extend the indications or amend dosage regimes for currently marketed drugs were considered by the Committee. Fifty applications were approved, thirty rejected and four deferred pending production of further information on safety and efficacy. Under the Committee's control are the Australian Registry of Adverse Reactions to Drugs, which provides an early warning system based on reports of reactions to drugs forwarded voluntarily by medical practitioners, pharmacists, hospitals, etc.; the Adverse Drug Reaction Advisory Committee, which gives initial consideration to the adverse drug reaction reports received by the Registry and arranges feedback to the medical profession; the Vaccines Sub-committee; the Endocrinology Sub-committee; the Congenital Abnormalities Sub-committee; the Anti-cancer Drugs Sub-committee; the Radiopharmaceuticals Sub-committee; and the National Drug Information Advisory Sub-committee, formed to oversight administrative aspects of the technical input to the National Drug Information Service.

The *Therapeutic Goods Advisory Committee* considers, and advises the Minister for Health on, any matters relating to standards applicable to goods for therapeutic use and the administration of the Therapeutic Goods Act. The *Therapeutic Goods Standards Committee*, under the same Act, advises the Minister for Health on standards applicable to goods for therapeutic use and requirements relating to the labelling and packaging of any such goods.

The *National Therapeutic Goods Committee* comprises Federal and State representatives. Its function is to make recommendations to the Commonwealth and State Governments on action necessary to bring about co-ordination of legislation and administrative controls on therapeutic goods. Sub-committees have been formed to consider specific matters, notably advertising, establishment of a National Product Register, a Code of Good Manufacturing Practice, and standards for disinfectants.

The *Standing Committee of the Health Ministers' Conference* was established by the 1980 Australian Health Ministers' Conference to carry out any tasks or directions referred to it by the Conference. The Committee's membership consists of representatives from the Commonwealth Departments of Health and Veterans' Affairs, each State health authority, the Northern Territory Department of Health and the Capital Territory Health Commission.

COMMUNICABLE DISEASES

Quarantine

The *Quarantine Act 1908* is administered by the Commonwealth Department of Health and provides for the taking of measures to prevent the introduction or spread of diseases affecting humans, animals and plants.

Human quarantine

The masters of all ships and aircraft arriving in Australia from overseas are required to notify medical officers acting on behalf of the Commonwealth Department of Health of all cases of illness on board their vessel at the time of arrival. Passengers or crew members who are believed to be suffering from a quarantine illness may be examined by Quarantine Medical Officers located at all ports of entry.

The main concern of examining officers is the detection of quarantinable diseases including cholera, yellow fever, plague, typhus fever and viral haemorrhagic fevers. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Sufferers or suspected sufferers may be isolated to prevent the possible spread of the disease.

A valid International Certificate of Vaccination is required of travellers to Australia over one year of age who have been in *yellow fever* endemic zones within the past 6 days.

All passengers, whether they arrive by sea or air, are required to give their intended place of residence in Australia so that they may be traced if a case of disease occurs among the passengers on the ship or aircraft by which they travelled to Australia.

Isolation. Under the Quarantine Act, airline and shipping operators are responsible for the expenses of isolation of all travellers who disembark from their aircraft or ship and who fail to meet Australia's vaccination requirements.

Animal quarantine

The Department of Health, in consultation with the States and Australia's agricultural and livestock groups, seeks to satisfy the need for animal derived goods and to provide improved genetic material for Australia's livestock industries, while ensuring the maximum practical protection against the entry of exotic livestock diseases.

Importation of animals is restricted to certain species from designated overseas countries whose diseases status and pre-entry quarantine facilities meet Australia's stringent requirement. With few exceptions all imported animals are required to serve a period in quarantine on arrival.

Animal quarantine stations are located at most capital cities. A high security animal quarantine station on the Cocos (Keeling) Islands provides the means whereby the safe importation of a wide range of commercial livestock is facilitated.

Measures to prevent the entry of exotic diseases are also applied through the Northern Surveillance program and the rigorous screening of applications to import biological materials and animal products and through inspection and treatment procedures on arrival.

Plant quarantine

Arising from both its dependence upon exotic plant species for agriculture, horticulture and forestry and its island continental isolation, Australia is free of numerous plant pests and diseases that occur elsewhere in the world. The importation into Australia of plant materials is subject to strict quarantine controls. Some materials are admitted only under certain conditions while others are prohibited altogether. The quarantines are designed to exclude from the country unwanted pests and plant diseases. It is not possible to predict how a new plant pest or disease will perform when introduced to a new environment free of its natural enemies. Hence the general objective is to keep out of the country any pest or disease which could cause serious economic losses to Australia's agriculture, horticulture or forests.

For further details *see* Year Book No. 61, page 449.

Notifiable diseases

Although State and Territory health authorities are responsible for the prevention and control of infectious diseases within their areas of jurisdiction, certain powers and responsibility may be delegated to local authorities within each State. These usually involve such activities as personal health services, environmental sanitation and local communicable disease control.

The Commonwealth Department of Health receives notification figures from the States and Territories on a monthly basis which are published in *Communicable Diseases Intelligence*. The national totals for the year are published in the annual report of the Director-General of Health.

The following table shows, by State and Territory, the number of cases notified in 1983, for those diseases which are notifiable in all States and Territories. The table does not include diseases which are notifiable only in certain States or Territories. Factors such as the availability of medical and diagnostic services, varying degrees of attention to disease notification, and the enforcement and follow-up of notifications by health authorities, affect both the completeness and the comparability of the figures between States and from year to year.

NOTIFIABLE DISEASES(*a*), NUMBER OF CASES NOTIFIED 1983

Disease	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Amoebiasis	6	–	19	26	3	–	2	1	57
Ankylostomiasis	–	–	10	77	1	–	–	–	88
Arbovirus infection	22	–	–	9	–	–	2	–	33
Brucellosis	10	1	2	1	1	–	1	–	16
Cholera	–	1	3	–	–	–	–	–	4
Diphtheria	–	1	–	–	–	–	–	–	1
Gonorrhoea	3,284	2,417	1,426	834	1,729	107	780	69	10,646
Hepatitis A (infectious)	205	260	152	153	57	20	123	21	991
Hepatitis B (serum)	309	334	145	107	15	7	14	12	943
Hydatid disease	2	–	2	1	–	3	–	2	10
Leprosy	14	7	16	4	17	1	2	1	62
Leptospirosis	32	94	88	17	9	2	–	–	242
Malaria	146	80	223	43	33	2	27	16	570
Ornithosis	1	5	1	9	–	3	–	–	19
Salmonella infections	1,178	258	447	478	93	110	373	52	2,989
Shigella infections	65	–	74	72	89	8	257	2	567
Syphilis	1,906	174	388	107	287	3	681	10	3,556
Tetanus	–	2	6	1	–	1	–	–	10
Tuberculosis (all forms)	408	296	159	129	151	–	44	31	1,218
Typhoid fever	13	1	6	1	–	–	–	1	22
Typhus (all forms)	–	1	20	–	–	–	–	–	21

(*a*) There were no cases of anthrax, plague, poliomyelitis, smallpox or yellow fever.

NOTIFIABLE DISEASES(*a*), NUMBER OF CASES NOTIFIED: AUSTRALIA, 1978 TO 1983

	1978	*1980*	*1981*	*1982*	*1983*
Amoebiasis	19	53	62	33	57
Ankylostomiasis	238	219	136	110	88
Anthrax	–	2	–	–	–
Arbovirus infection	1	18	17	221	33
Brucellosis	50	49	36	28	16
Cholera	1	3	2	1	4
Diphtheria	3	1	18	2	1
Gonorrhoea	12,352	11,487	11,197	12,805	10,646
Hepatitis A (infectious)	2,661	1,385	1,453	1,046	991
Hepatitis B (serum)	773	646	500	725	943
Hydatid disease	17	41	24	12	10
Leprosy	55	35	38	46	62
Leptospirosis	37	64	95	135	242
Malaria	273	541	408	548	570
Ornithosis	6	17	13	14	19
Poliomyelitis	–	1	–	–	–
Salmonella infections	2,059	2,292	2,269	1,866	2,989
Shigella infections	394	545	424	437	567
Syphilis	3,322	2,902	2,916	3,211	3,556
Tetanus	14	9	12	12	10
Tuberculosis (all forms)	1,363	1,554	1,460	1,363	1,218
Typhoid fever	24	19	26	15	22
Typhus (all forms)	1	–	–	11	21

(*a*) No cases of smallpox were notified. Plague and yellow fever were not notifiable for 1976 and 1978—no cases have since been notified.
Source: Commonwealth Department of Health.

Immunisation campaigns

Continuing immunisation programs against poliomyelitis, measles, mumps, rubella, diphtheria, tetanus, and whooping cough are maintained in all States and Territories. Mumps immunisation programs commenced late in 1982.

Mass campaigns for rubella immunisation are routinely undertaken only on girls aged between 10 and 14 years. Rubella immunisation is also available when appropriate to females during their reproductive years. Whooping cough immunisation is currently given only to infants less than 1 year of age.

HOSPITALS

Repatriation hospitals

The Department of Veterans' Affairs administers the only national hospital system in Australia, consisting of six acute-care Repatriation Hospitals (one in each State), three auxiliary hospitals, and the Anzac Hostel in Brighton, Victoria.

A full range of in-patient and out-patient services is available for the care and treatment of eligible Veterans and their dependants. Patients from the general community may also receive treatment at Repatriation hospitals provided bed capacity is available after the needs of entitled Veterans have been met and the hospital facilities are appropriate to the treatment required.

The Department of Veterans' Affairs has fostered the development of reciprocal treatment arrangements with State health authorities to avoid the unnecessary duplication of hospital facilities and services. All Repatriation General Hospitals are fully accredited by the Australian Council on Hospital Standards, each is affiliated with a university and learned college for the education of medical and allied health professional staff. Schools for nursing education are provided at the major RGHS.

Veterans may also receive treatment in non-departmental public and private hospitals and nursing homes at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by State authorities.

Details of patients, staff and expenditure on Repatriation institutions and other medical services are given in Chapter 9, Social Security and Welfare.

Hansenide hospitals

The two isolation hospitals in Australia for the care and treatment of persons suffering from Hansen's Disease (leprosy) are at Little Bay in New South Wales and Derby in Western Australia. In North Queensland, a leprosy annexe is attached to the Palm Island Hospital near Ingham and in the Northern Territory leprosy sufferers are treated and cared for at the East Arm Hospital in Darwin. Treatment is also provided at a number of other hospitals in Australia which do not have facilities set aside specifically for leprosy patients.

Mental health institutions

The presentation of meaningful statistics of mental health services has become increasingly difficult because of changes in recent years in the institutions and services for the care of mental patients. The emphasis has shifted from institutions for care of patients certified insane to a range of mental health services provided for in-patients and out-patients at psychiatric hospitals, admission and reception centres, day hospitals, out-patient clinics, training centres, homes for the mentally retarded and geriatric patients, psychiatric units in general hospitals, and the like. Statistics relating to mental health institutions are available from relevant agencies in most States.

Hospital statistics

A major factor in the cost of health care in Australia is hospital treatment of patients. Attempts to measure the number of in-patients treated and bed-days involved for each disease or injury have been going on for some years, but as coverage is incomplete it is not possible to present national statistics. Figures for New South Wales, Queensland, South Australia, Western Australia and Tasmania, however, have been published in the ABS publications *Hospital and Nursing Home Inpatients* (4306.1), *Patients Treated in Hospitals* (4303.3), *Hospital Morbidity* (4302.4), *Hospital In-patient Statistics* (4301.5) and *Hospital Morbidity* (4301.6) respectively.

The number of hospitals and beds in each State and Territory, as approved under the Health Insurance Act, is provided in the table below.

APPROVED HOSPITALS (*a*) AND BEDS, STATES AND TERRITORIES, 30 JUNE 1984

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved hospitals—									
Public/Recognised	229	167	143	83	95	22	5	4	748
Private—									
Category 1	7	11	10	7	3	1	—	—	39
Category 2	62	49	21	14	16	4	—	1	167
Category 3	37	59	16	16	3	1	—	—	132
Total private	106	119	47	37	22	6	—	1	338
Total hospitals	**33**	**28**	**19**	**120**	**117**	**28**	**5**	**5**	**10**

APPROVED HOSPITALS (*a*) AND BEDS, STATES AND TERRITORIES, 30 JUNE 1984—*continued*

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Beds in—									
Public/Recognised . . .	25,615	15,370	13,008	6,513	6,620	2,144	740	1,044	71,054
Private hospitals—									
Category 1	1,230	2,173	1,664	1,025	704	142	—	—	6,938
Category 2	3,915	2,282	1,393	661	1,069	362	—	51	9,733
Category 3	1,169	1,457	742	472	77	12	—	—	3,929
Total private hospitals	6,314	5,912	3,799	2,158	1,850	516	—	51	20,600
Total hospitals	**31,929**	**21,282**	**16,807**	**8,671**	**8,470**	**2,660**	**740**	**1,095**	**91,654**
Beds per 1,000 population .	*5.9*	*5.2*	*6.7*	*6.4*	*6.1*	*6.1*	*5.4*	*4.5*	*5.9*

(*a*) Includes Veterans' Affairs hospitals.
Source: Commonwealth Department of Health.

DEATHS

Information relating to crude death rates and life expectancy is contained in Chapter 6, Demography (Vital Statistics)

Causes of Death and Perinatal Deaths

Causes of death in Australia are classified according to the Ninth Revision of the International Classification of Diseases (ICD) produced by the World Health Organization (WHO). A summary of age-specific death rates for major cause groups in this period was published in *Causes of Death: Age-specific Death Rates, Australia, 1968 to 1978* (3308.0). The statistics in the table below show the number of deaths registered during 1983, classified to broad groupings of causes of death. More detailed statistics are contained in Causes of Death, Australia (3303.0).

The major causes of death in the community in 1983 were diseases of the circulatory system (accounting for 49.7 per cent), neoplasms (23.5 per cent), diseases of the respiratory system (7.1 per cent) and accidents, poisonings and violence (6.9 per cent). Infectious diseases have caused few deaths in Australia in recent years, largely as a result of quarantine activities, immunisation campaigns and similar measures. In 1983, only 0.5 per cent of all deaths were due to such diseases.

The relative importance of groups of causes of death varies with age. Diseases of the circulatory system and neoplasms are predominant in middle and old age. Accidents, particularly those involving motor vehicles, are the primary cause of death in childhood and early adulthood. The majority of infant deaths (58 per cent in 1983) occur within 28 days after birth (see table on perinatal deaths). Nearly all of these neonatal deaths are due to congenital anomalies, birth injury or other conditions present from birth.

CAUSES OF DEATH IN EACH AGE GROUP, AUSTRALIA, 1983

	Age group (years)									
Causes of death	*Under one*	*1–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*75 and over*	*Total (a)*
	NUMBER OF DEATHS									
Infectious and parasitic diseases . . .	24	32	15	22	29	42	72	115	227	578
Neoplasms	14	154	166	358	849	2,376	5,884	7,941	8,102	25,845
Endocrine, nutritional and metabolic diseases and immunity disorders . . .	15	42	25	23	52	135	293	592	991	2,168
Diseases of the nervous system and sense organs	46	79	71	70	58	104	187	319	573	1,507
Diseases of the circulatory system . . .	14	36	96	207	748	2,386	7,062	13,965	30,139	54,661
Diseases of the respiratory system . . .	65	46	46	61	109	284	882	2,179	4,105	7,778
Diseases of the digestive system	13	9	19	52	155	415	664	792	1,528	3,647
Congenital anomalies	712	109	27	22	10	21	42	23	15	981
All other diseases (*b*)	912	27	80	124	75	148	369	710	2,173	4,619
Signs, symptoms and ill-defined conditions	452	16	8	12	14	13	21	34	139	711
Accidents, poisonings and violence . .	59	547	1,735	1,355	809	728	773	643	936	7,589
All causes	**2,327**	**1,097**	**2,288**	**2,306**	**2,908**	**6,652**	**16,249**	**27,313**	**48,928**	**110,084**

CAUSES OF DEATH IN EACH AGE GROUP, AUSTRALIA, 1983—*continued*

Causes of death	*Age group (years)* *Under one*	*1–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*75 and over*	*Total (a)*
RATE(*c*)										
Infectious and parasitic diseases	10	1	1	1	1	3	5	12	41	4
Neoplasms	6	4	6	14	42	157	417	814	1,458	168
Endocrine, nutritional and metabolic diseases and immunity disorders	6	1	1	1	3	9	21	61	178	14
Diseases of the nervous system and sense organs	19	2	3	3	3	7	13	33	103	10
Diseases of the circulatory system	6	1	4	8	37	157	501	1,432	5,424	355
Diseases of the respiratory system	27	1	2	2	5	19	63	223	739	51
Diseases of the digestive system	5	—	1	2	8	27	47	81	275	24
Congenital anomalies	294	3	1	1	—	1	3	2	3	6
All other diseases(*b*)	376	1	3	5	4	10	26	73	391	30
Signs, symptoms and ill-defined conditions	186	—	—	—	1	1	1	3	25	5
Accidents, poisonings and violence	11	16	66	54	40	48	55	66	168	49
All causes	**959**	**31**	**87**	**92**	**143**	**439**	**1,152**	**2,800**	**8,806**	**716**
PERCENTAGE(*d*)										
Infectious and parasitic diseases	1.0	2.9	0.7	1.0	1.0	0.6	0.4	0.4	0.5	0.5
Neoplasms	0.6	14.0	7.3	15.5	29.2	35.7	36.2	29.1	16.6	23.5
Endocrine, nutritional and metabolic diseases and immunity disorders	0.6	3.8	1.1	1.0	1.8	2.0	1.8	2.2	2.0	2.0
Diseases of the nervous system and sense organs	2.0	7.2	3.1	3.0	2.0	1.6	1.2	1.2	1.2	1.4
Diseases of the circulatory system	0.6	3.3	4.2	9.0	25.7	35.9	43.5	51.1	61.6	49.7
Diseases of the respiratory system	2.8	4.2	2.0	2.6	3.7	4.3	5.4	8.0	8.4	7.1
Diseases of the digestive system	0.6	0.8	0.8	2.3	5.3	6.2	4.1	2.9	3.1	3.3
Congenital anomalies	30.6	9.9	1.2	1.0	0.3	0.3	0.3	0.1	—	0.9
All other diseases(*b*)	39.2	2.5	3.5	5.4	2.6	2.2	2.3	2.6	4.4	4.2
Signs, symptoms and ill-defined conditions	19.4	1.5	0.3	0.5	0.5	0.2	0.1	0.1	0.3	0.6
Accidents, poisonings and violence	2.5	49.9	75.8	58.8	27.8	10.9	4.8	2.4	1.9	6.9
All causes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) *Total* includes 16 deaths where age is not known. (*b*) Includes 913 deaths from conditions originating in the perinatal period and 1,712 deaths from diseases of the genito-urinary system. (*c*) Rates are per 100,000 of population at risk, except for children under one year of age which are per 100,000 live births registered. (*d*) Percentage of all deaths within each age group.

Suicides

A range of statistics relating to deaths by suicide (as determined by coroner's inquests) in Australia was published by the ABS during 1983 in *Suicides, Australia 1961–1981 (Including historical series 1881–1981)* (3309.0).

In brief, the statistics indicate that

- Suicide accounted for over 1,500 deaths in Australia in each of the years 1971 to 1981. While this represents a small proportion of all deaths (only 1.5 percent of the total in 1981), it has considerable significance as a cause of death at ages between 15 and 44 years. For example, in 1981, suicide accounted for 15.2 per cent of all deaths at ages 25–34 years.
- While the suicide rate per 100,000 population in 1981 (11.2) is little different from 100 years earlier (11.0), there have been considerable fluctuations during the intervening years. Particularly significant for males is the high rate in 1930 (24.0), and the low rates during World War II. The period 1963 to 1967 showed the highest rates for females, as well as higher than average rates for males.
- In most years of the period 1881 to 1981, male suicide rates have been more than double those of females (16.9 and 5.5 respectively in 1981).
- Firearms and explosives were the methods of suicide most frequently used by males over the period 1968 to 1981. Poisoning by solid or liquid substances was the most frequent for females over this period.

There were 1,726 suicides in 1983, which represented 1.6 percent of all deaths registered in that year, and a rate of 11 per 100,000 population.

Perinatal deaths

Since deaths within the first four weeks of life (neonatal deaths) are mainly due to conditions originating before or during birth, and the same conditions can cause fetal death (stillbirth), special tabulations are prepared combining the two. These are termed 'perinatal deaths'. The statistical definition of perinatal deaths in Australia was amended in 1979 from that previously used, in accordance with a recommendation of the Ninth Revision Conference (1975) of the World Health Organization "that national perinatal statistics should include all fetuses and infants delivered weighing at least 500 grams (or, when birthweight is unavailable, the corresponding gestational age (22 weeks) or body length (25 cm crown-heel)), whether alive or dead". The table below incorporates a further recommendation of the Conference in that it shows the number of fetal, neonatal and total perinatal deaths in Australia classified by both the main condition in the fetus/infant and the main condition in the mother.

The perinatal death rate for Australia fell slightly in 1983, to 12.16 per 1,000 total births compared with 13.39 in 1982.

Of the conditions in the child, the two main groups responsible for perinatal deaths were *Hypoxia, birth asphyxia and other respiratory conditions* (37.3 per cent of the total) and *Congenital anomalies* (25.8 per cent). Thirty-eight per cent of all perinatal deaths did not mention any condition in the mother as contributing to the death. Of those deaths where maternal conditions were reported, 48.1 per cent were reported as being due to *Complications of placenta, cord and membranes*.

PERINATAL DEATHS BY CAUSE, AUSTRALIA, 1983

	Number of deaths			*Rate*		
Cause of death	*Fetal*	*Neonatal*	*Perinatal*	*Fetal(a)*	*Neonatal (b)*	*Perinatal (a)*
Conditions in fetus/infant—						
Slow fetal growth, fetal malnutrition and immaturity	79	143	222	0.32	0.59	0.91
Birth trauma	4	35	39	0.02	0.14	0.16
Hypoxia, birth asphyxia and other respiratory conditions	762	345	1,107	3.12	1.42	4.59
Fetal and neonatal haemorrhage	30	101	131	0.12	0.42	0.54
Haemolytic disease of fetus and newborn	16	9	25	0.07	0.04	0.10
Other conditions originating in the perinatal period	482	117	599	1.97	0.48	2.45
Congenital anomalies	238	529	767	0.98	2.18	3.14
Infectious and parasitic diseases	3	4	7	0.01	0.02	0.03
All other causes	5	67	72	0.02	0.28	0.29
Conditions in mother—						
Maternal conditions which may be unrelated to present pregnancy	176	89	265	0.72	0.37	1.09
Maternal complications of pregnancy	170	380	550	0.70	1.57	2.25
Complications of placenta, cord and membranes	723	166	889	2.96	0.68	3.64
Other complications of labour and delivery	37	108	145	0.15	0.43	0.59
No maternal condition reported	513	607	1,120	2.10	2.50	4.59
All causes—1983	**1,619**	**1,350**	**2,969**	**6.63**	**5.57**	**12.16**
1982	1,705	1,529	3,234	7.06	6.38	13.39
1981	1,706	1,440	3,146	7.18	6.11	13.25
1980	1,708	1,503	3,211	7.52	6.67	14.14
1979	1,757	1,605	3,362	7.82	7.20	14.96
1978	1,904	1,737	3,641	8.43	7.75	16.11

(*a*) Per 1,000 births registered (live births and stillbirths) weighing 500 grams or more at birth. (*b*) Per 1,000 live births registered weighing 500 grams or more at birth

Note: The statistics for 1978 in this table are also based on the revised definition.

Cremations

State/Territory	1981		1982		1983		
	Number of cremations (b)	*Number of deaths*	*Number of cremations (b)*	*Number of deaths*	*Number of crematoria (a)*	*Number of cremations (b)*	*Number of deaths*
N.S.W.	21,182	39,959	21,821r	42,352	17	21,443	40,323
Vic.	11,597	29,034	12,234	30,611	4	11,865	29,320
Qld	8,047	17,175	8,547	18,149	9	8,073	17,200
S.A.	4,335	9,706	4,723	10,457	2	4,514	9,882
W.A.	4,306	7,993	4,415	8,187	3	4,496	8,359
Tas.	1,352	3,320	1,476	3,432	2	1,489	3,311
N.T.	—	854	—	573	—	—	738
A.C.T.	643	962	595	1,010	1	661	951
Australia—							
number	**51,462**	**109,003**	**53,811r**	**114,771**	**38**	**52,541**	**110,084**
per cent (c)	47.2	..	46.9	..	...	47.7	..

(a) At 31 December. (b) Cremations are not necessarily carried out in the State or Territory where the death was registered. (c) Cremations as a percentage of all deaths.
Source: Services and Investment Ltd.

Health-Related Surveys Conducted by the ABS

Australian Health Surveys

A survey was conducted by ABS during the period July 1977–June 1978 to obtain information on the health of Australians and the use of and need for various health services and facilities. Topics covered by the survey included recent and chronic illness, accidents, use of medicines, and use of doctors, dentists, and other health workers and facilities, as well as a range of personal characteristics. The items are described more fully in *Australian Health Survey Information Paper* (4340.0). Summary results of the survey have been published in *Australian Health Survey 1977–1978* (4311.0); detailed results are published in a series of publications (4313.0 to 4322.0) dealing with the special topics of the survey. The survey is explained in detail in *Outline of Concepts, Methodology and Procedures Used* (4323.0).

During the period February 1983–January 1984 a survey was conducted to obtain information on the actions people had taken about their health in the two weeks before interview and the medical conditions which underline those actions. The actions covered included hospitalisations; consultation with doctors, dentists and other health professionals; reduced activity and medicine taking. For some topics such as hospitalisations and dental consultations, details of the action related to the 12 months before interview. The survey methodology allowed for the identification of conditions for which multiple actions had occurred. Further explanation is given in *Australian Health Survey, 1983, Outline of Concepts, Methodology and Procedures Used* (4323.0) and preliminary results are available in *Australian Health Survey, 1983 (Preliminary)* (4348.0).

Health Insurance Surveys

These surveys have been conducted in March for the years 1979–1983. In 1984 the survey was conducted in May and covered wage and salary earners in capital cities only.

The 1984 survey sought information on hospital and ancillary insurance taken out over and above that which is available under Medicare. Results are published in *Health Insurance of Wage and Salary Earners in Capital Cities, May 1984* (4335.0).

No Health Insurance Survey was conducted in 1985.

Hearing Survey

In September 1978 the ABS conducted a survey to obtain information about hearing problems of persons aged 15 years or more. Results of the survey have been published in the publication *Hearing and the Use of Hearing Aids (Persons aged 15 years or more) September 1978* (4336.0).

Sight Survey

During February to May 1979 the ABS conducted a survey to obtain information on sight problems and the use of glasses/contact lenses for the Australian population aged 2 years or more. Results of the survey have been published in the publication *Sight, Hearing and Dental Health (persons aged 2 to 14 years) February–May 1979* (4337.0).

Dental Surveys

During February to May 1979 the ABS conducted a survey to obtain information on the dental health of the Australian population aged 2 years or more. Information collected included time since last visit to a dentist; number of visits in last 12 months, treatment received at last visit and usual number of check-ups per year. Data were also collected for persons aged 15 years or more as to whether false teeth were worn.

Results of the survey for persons aged 2 to 14 years have been published in the publication *Sight, Hearing and Dental Health (persons aged 2 to 14 years) February–May 1979* (4337.0). For persons aged 15 years or more the relevant publication is *Dental Health (persons aged 15 years or more) February–May 1979* (4339.0).

A survey was conducted during November 1983 to obtain information on the usage of dental services at schools and at private practices by children aged 2 to 14 years. The main features of the survey results are:

- An estimated 2,616,900 (80.0 per cent) of children aged 2 to 14 years in Australia had had a dental consultation at some time in their life. Of these, 391,100 (14.9 per cent) had their first consultation when aged less than 3 years, 1,088,400 (41.6 per cent) when aged 3 or 4 years, 831,300 (31.8 per cent) when aged 5 or 6 years, 266,000 (10.2 per cent) when aged 7 to 14 years and it was not known when 40,000 (1.5 per cent) had their first dental consultation.
- An estimated 2,252,800 (68.9 per cent) of children aged 2 to 14 years had had a dental consultation in the previous twelve months. Of these, 1,145,900 (50.9 per cent) had their most recent consultation at a private dental surgery and 929,200 (41.2 per cent) at a school dental clinic. However, it was only in New South Wales and Victoria that the majority of the most recent consultations took place at a private dental surgery.
- Of the estimated 1,655,700 children aged 4 to 11 years at school, 1,140,600 (68.9 per cent) said that the School Dental Service was available through their school. Of these, 922,200 (80.8 per cent) had used the Service, 211,700 (18.6 per cent) had never used it and it was not known whether 6,800 (0.6 per cent) had ever used it.

Results are published in *Children's Dental Health Survey, Australia, November 1983* (4349.0).

PERSONS AGED 2 TO 14 YEARS: AGE AT WHICH THEY FIRST HAD A DENTAL CONSULTATION BY CURRENT AGE, AUSTRALIA, NOVEMBER 1983

	Age group (years)				
	2-4	*5-9*	*10-14*	*Total*	*Total*
		('000)			per cent
Age first had a dental consultation					
Less than 3 years	99.8	139.2	152.2	391.1	12.0
3 years but under 5 years	99.3	481.1	508.0	1,088.4	33.3
5 years but under 7 years	..	388.9	442.4	831.3	25.4
7 years old or more	..	55.0	211.1	266.0	8.1
Not known how old	*	7.5	32.5	40.0	1.2
Total having a consultation	*199.2*	*1,071.6*	*1,346.1*	*2,616.9*	*80.0*
Never had a consultation	491.8	137.2	23.4	652.5	20.0
Total	**691.0**	**1,208.9**	**1,369.5**	**3,269.3**	**100.0**

PERSONS AGED 2 TO 14 YEARS WHO HAVE HAD A DENTAL CONSULTATION IN THE LAST 12 MONTHS: PLACE OF MOST RECENT CONSULTATION BY TIME SINCE MOST RECENT CONSULTATION, AUSTRALIA, NOVEMBER 1983

	Place of most recent consultation					
Time since most recent consultation	*Private Dental Surgery*	*School Dental Clinic*	*Hospital*	*Dental Clinic*	*Other*	*Total*
			('000)			
2 weeks or less	140.3	121.2	9.5	10.8	4.9	286.7
More than 2 weeks to 6 months	697.5	588.7	40.9	49.4	21.0	1,397.5
More than 6 months to 12 months	308.1	219.3	13.4	22.7	5.2	568.6
Total	**1,145.9**	**929.2**	**63.8**	**82.9**	**31.1**	**2,252.8**
			Per cent			
Total	**50.9**	**41.2**	**2.8**	**3.7**	**1.4**	**100.0**

Immunisation Surveys

Data was collected during the Australian Health Survey 1977–78 on the immunisation status of persons aged 2 to 5 years in relation to Poliomyelitis, Diphtheria, Whooping Cough and Tetanus and results were published in *Australian Health Survey, Sabin and Triple Antigen Vaccination, 1977–78* (4316.0).

In November 1983, a survey was held to obtain information on the immunisation status of persons aged 0-6 years against Poliomyelitis, Diphtheria, Whooping Cough and Tetanus. The main features from this survey are:

- At November 1983, an estimated 505,700 (54.7 per cent) of children aged 2 to 5 years in Australia had received a total of 4 or more doses of Triple Antigen (TA) and Combined Diphtheria and Tetanus (CDT), and 19,900 (2.2 per cent) had received three or more doses of CDT only, as recommended by the National Health and Medical Research Council (NH & MRC). A further 165,300 (17.9 per cent) had received 4 or more doses of TA only.
- 12,400 (1.3 per cent) had received neither TA nor CDT and it was not known whether 7,100 (0.8 per cent) had received either TA or CDT.
- An estimated 35,400 (3.8 per cent) of persons aged 2 to 5 years were not immunised against Whooping Cough (i.e. they had not received any Triple Antigen vaccine).
- 783,600 (84.8 per cent) of children aged 2 to 5 years had received three or more doses of Polio vaccine and 38,400 (4.2 per cent) had not received any Polio vaccine. It was not known whether 14,600 (1.6 per cent) of children aged 2 to 5 years had received any Polio vaccine.
- An estimated 631,500 (68.4 per cent) of persons aged 2 to 5 years had been vaccinated against Measles, and 207,600 (22.5 per cent) had been vaccinated against Mumps.

More detailed results are available in *Childrens Immunisation Survey, Australia* (4351.0) and in the tables set out below.

TRIPLE ANTIGEN AND COMBINED DIPHTHERIA AND TETANUS VACCINATION: NUMBER OF DOSES RECEIVED BY PERSONS AGED 2 TO 5 YEARS, BY STATE OR TERRITORY, NOVEMBER 1983
('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
TA and CDT received(a)									
Number of doses									
Less than four	36.2	17.3	19.1	8.5	5.9	2.0	*	2.0	92.4
Four or more	149.2	143.8	81.8	42.2	59.8	14.2	7.1	7.6	505.7
Not known	2.8	4.3	*	*	1.9	*	*	*	12.1
Total	188.2	165.3	102.4	51.5	67.6	16.9	8.6	9.6	610.1
Per cent	59.4	70.5	65.7	68.8	77.9	62.3	77.7	57.0	66.1
TA only received									
Number of doses									
Less than four	37.2	20.8	19.7	7.3	8.0	2.6	*	*	97.5
Four or more	73.9	37.4	23.1	11.7	7.4	7.1	*	4.4	165.3
Not known	3.9	*	*	*	*	*	*	*	8.1
Total	114.9	59.8	44.3	19.6	15.8	9.7	*	5.4	271.0
Per cent	36.3	25.5	28.4	26.2	18.2	35.8	*	32.4	29.3
CDT only received									
Number of doses									
Less than three	*	*	*	*	*	*	*	*	2.8
Three or more(b)	6.0	4.0	5.2	*	1.5	*	*	1.7	19.9
Not known	*	*	*	*	*	*	*	*	*
Total	6.4	5.0	5.8	1.3	2.0	*	*	1.7	23.0
Per cent	2.0	2.1	3.7	1.8	2.3	*	*	10.0	2.5
Not known whether TA or CDT received	2.8	*	*	*	*	*	*	*	7.1
Per cent	0.9	*	*	*	*	*	*	*	0.8
Neither TA nor CDT received	4.3	*	2.5	1.8	*	*	*	*	12.4
Per cent	1.3	*	1.6	2.4	*	*	*	*	1.3
Total	**316.6**	**234.7**	**155.8**	**74.8**	**86.7**	**27.1**	**11.1**	**16.8**	**923.6**
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Person received both types of vaccination as part of recommended course. (b) Recommended course of CDT only does not include a dose at 6 months.

POLIO VACCINATION: NUMBER OF DOSES RECEIVED BY PERSONS AGED 2 TO 5 YEARS, BY STATE OR TERRITORY, NOVEMBER 1983

('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Number of doses									
One	8.7	4.3	3.5	*	2.0	1.2	*	*	21.3
Two	14.5	7.4	5.8	4.2	3.7	2.0	*	*	38.7
Three or more	262.0	201.7	132.0	65.0	75.9	21.6	9.6	15.7	783.6
Not known	10.8	8.2	3.5	1.4	2.3	*	*	*	27.0
Total	*296.0*	*221.6*	*144.9*	*71.6*	*83.8*	*25.4*	*10.7*	*16.7*	*870.6*
Per cent	*93.5*	*94.4*	*93.0*	*95.7*	*96.7*	*93.6*	*96.4*	*99.4*	*94.3*
Not known whether polio vaccination received	8.0	3.0	*	*	*	*	*	*	14.6
Per cent	2.5	1.3	*	*	*	*	*	*	1.6
No polio vaccination received	12.6	10.1	9.2	2.5	2.2	1.5	*	*	38.4
Per cent	4.0	4.3	5.9	3.3	2.6	5.4	*	*	4.2
Total persons aged 2 to 5 years	**316.6**	**234.7**	**155.8**	**74.8**	**86.7**	**27.1**	**11.1**	**16.8**	**923.6**
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Information about the immunisation status of females aged 15 to 34 years in relation to Rubella was obtained during a survey conducted throughout Australia in March 1983. The survey results indicated that of the Australian female population aged 15 to 34 years, 69.5 per cent had obtained immunisation against Rubella; 23.6 per cent had not received any immunisation and 6.9 per cent did not know whether or not they had been immunised against Rubella. The most frequently reported reason for not obtaining immunisation was that they had 'had Rubella'. This was reported by 32.1 per cent of females aged 15-34 years who had not received the vaccination. Another 28.4 per cent were reported as having never 'bothered or thought about it'.

Results of the survey are published in *Rubella Immunisation Survey (females aged 15 to 34 years) March 1983* (4353.0).

Survey of Handicapped Persons

During February to May 1981 a survey was conducted thoughout Australia to obtain information about the nature and extent of various disabilities and handicaps in the Australian community.

The survey examined the needs of and the kinds of problems experienced by persons with different types of handicaps. The areas examined in respect of handicapped persons included causes, disabling conditions, services, aids, accommodation, employment, education, income, transport, recreation and institutionalised care.

The sample for the survey consisted of two distinct parts. In the first part, a sample of 33,000 households was selected from all households in Australia and in the second part, a sample of 5,300 patients or residents was selected from 723 randomly selected health establishments throughout Australia.

Results of the survey are published in *Handicapped Persons, Australia* (4343.0).

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HISTORY OF HOME NURSING IN AUSTRALIA

(This special article has been contributed by the States and Territories Home Nursing Services)

Introduction

1985 marks the Centenary of the Home Nursing services, historically a vital component of the health care system in the Australian community.

Home nursing began in Australia in 1885 when a group of concerned citizens met in Victoria and formed the Melbourne District Nursing Service with the object of looking after disadvantaged sick people at home. Since those early days the nursing service has spread to every State and Territory and now, 100 years later, there are around 200 active organisations using modern equipment and offering general and specialised nursing care to the people of Australia.

Whilst there are, in 1985, many nurses working in the community providing home care to patients, this article focuses on the first Home Nursing organisations established in each State and Territory.

The majority of the Home Nursing services in Australia commenced as voluntary organisations. Over the hundred years of their existence the nursing services have been challenged constantly by limited finances and growing demand. However the passing of the Commonwealth Home Nursing Subsidy Act in 1956 meant Home Nursing organisations became eligible to receive Commonwealth Government subsidy for the salaries of registered nurses employed, provided the State matched the subsidy. From that time on Home Nursing services rapidly developed and in 1983 there were 193 Home Nursing organisations throughout the six States of Australia receiving a subsidy.

'Prepared for duty'. The bicycle provided a common means of transport for many of the early Home Nurses.

Home Nursing Services of Australia

The following table shows employment in these organisation by State, and the number of nursing visits made over the period 1977-78 to 1981-82.

HOME NURSING ORGANISATIONS—AUSTRALIAN STATES: 1977-78 TO 1981-82

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Number of home nursing organisations at 30 June—							
1978	89	69	10	1	3	21	193
1979	90	69	10	1	3	21	194
1980	89	69	9	1	3	20	191
1981	89	69	9	1	3	20	191
1982	89	70	10	1	3	20	193
Visits made ('000), year ended 30 June—							
1978	1,195	1,221	1,297	478	820	237	5,248
1979	1,256	1,294	1,302	444	826	205	5,327
1980	1,317	1,389	1,285	441	851	211	5,494
1981	1,375	1,445	1,357	450	868	214	5,709
1982	1,421	1,495	1,445	438	866	231	5,896
Visits made per 1,000 mean population, year ended 30 June—							
1978	240	321	602	372	677	575	379
1979	249	337	597	344	670	494	381
1980	258	359	578	340	679	501	388
1981	264	368	588	343	675	503	395
1982	270	377	606	331	658	538	401
Average number of nurses employed (*a*), year ended 30 June—							
1978	406	513	384	191	233	61	1,788
1979	410	533	410	193	249	62	1,857
1980	425	565	430	190	254	63	1,927
1981	432	598	444	198	260	64	1,996
1982	444	622	472	201	271	74	2,084

(*a*) Federal subsidies in home nursing organisations are based on the number of nurses employed over and above the number employed at 30 September 1956 in the case of organisations existing at that date, and on the total number of nurses employed by home nursing organisations formed after that date. The actual numbers of nurses employed at 30 September 1956 were: New South Wales 43; Victoria 88; Queensland 16; South Australia 38; Western Australia 29; Tasmania 1.

Source: Annual Report of the Director-General of Health 1982-83 p. 191.

Despite financial limitations, the caring concern of the founders of Home Nursing organisations was the catalyst for the development of many innovative programs developed to meet community needs.

The link with district nurses from England is evident in the development of Home Nursing organisations in Australia.

Influence of England's district nursing

Although St Catherine's Royal Hospital was the oldest organisation to provide a visiting nursing service in England, in 1148, it was not until 1848 that there was any mention of nurses being prepared for work districts. In 1859 Mr William Rathborne recognised a need to provide a nurse to work amongst the poor in Liverpool and later established a training school for district nurses at his own expense. These nurses were seen at that time not just as caring for the sick but, due to their direct knowledge and close contact with those for whom they cared, also as social reformers.

In 1887, Queen Victoria's Jubilee year, part of the money collected for her gift was granted by the Queen for the establishment of the Queen Victoria Jubilee Institute for Nurses. When Queen Mary succeeded as patron of the Institute, in 1925, the name was changed to Queen's Institute of District Nursing. For many years the Institute was responsible for both the training and the employment of district nurses throughout England and quite a number of district nurses in Australia today have undertaken this training program.

Information about district nursing services was brought to Australia from England and Scotland by Dr Caffyn and Rev. C. Strong who were instrumental in setting up the first Home Nursing organisation in Australia—the Melbourne District Nursing Society.

DEVELOPMENT OF DISTRICT NURSING IN AUSTRALIA

Victoria was the first State to introduce a district nursing service in 1885. This was followed by South Australia (1894), Tasmania (1896), New South Wales (1900), Queensland (1904) and Western Australia (1905). The Northern Territory introduced an infant health and home service in 1929 to cater for the needs of Darwin while the first service in the A.C.T. started in 1946. A record of the development of district nursing in Australia is given below.

Victoria (1885)

The poor health and living conditions of disadvantaged sick persons in Melbourne prompted a group of concerned citizens to meet on the 17th February, 1885. Dr Caffyn and Reverend Charles Strong, two of the participants, were familiar with the working of the district nurses in Scotland. They briefed the meeting on their work, and the outcome of the meeting was the formation of the Melbourne District Nursing Society, to look after the sick poor persons at home to prevent unnecessary hospitalisation.

The nursing link with England was strengthened in 1892 with the appointment of Mrs L. Smith, the first fully trained nurse to be employed and a graduate from the Florence Nightingale training school. Quality of care was a concern of the Society even in those early days and was supported by members such as Mrs Caffyn who was known as a strong advocate for lifting nursing from the stereotype of Sarah Gamp—the drunken nurse in Dickens—to a 'scientific profession for gentlewomen'.

In 1898, the Society was incorporated under the Hospital and Charity Act. The need for a convalescent nursing home for the Society's patients prompted the building of an 'After Care Hospital' in 1925. Subsequently, in 1957, at the request of the Hospitals and Charities Commission, separate Boards of Management for the After Care Hospital and the District Nursing Society were developed. Each was incorporated as a separate entity and the name of Melbourne District Nursing Society was changed to Melbourne District Nursing Service. The 'Royal' prefix was granted to the Service by charter in 1966.

As a result of close contact that nurses had with the sick at home, in the context of their families and the community, nurses developed an awareness of community needs. This understanding prompted district nurses to pioneer a number of innovative programs over the years. Some of these were:

- 1894—The Service established a popular lecture series on hygiene.
- 1917—The Service helped in the establishment of welfare baby clinics.
- 1934—The Melbourne District Nursing Society Women's Welfare Clinic commenced offering advice on family planning and birth control.
- 1948—It was recorded that the Melbourne District Nursing Society Ante-Natal Clinic (established in 1931) was one of the first to institute routine weighing and blood pressure taking of pregnant women which resulted in the early detection and effective treatment of toxaemia of pregnancy.
- 1975—Two R.D.N.S. staff worked as outreach workers from the North Richmond Community Health Centre to residents in Housing Commission dwellings, focusing on case finding.

Currently the Service provides care which includes both general and specialist nursing care. This includes nursing treatments such as catheterization, stoma care and injections, rehabilitation nursing care, assessment of people at home regarding aids to daily living, psycho-social supportive care to patients and their relatives who may be under stress or grieving, health teaching in all aspects of health maintenance and self care.

In the area of mothers and babies, specialist staff provide ante-natal care and prescribed post-natal care following early discharge from hospital. This post-natal care includes general supervision and health teaching, nursing treatments for mother and baby and family planning advice. The service is provided to bridge the period between hospital discharge and the time mother and baby are able to attend the local Infant Welfare Centre.

Staff working in the specialist area of oncology nursing, work closely with the major referring hospitals to keep up-to-date with current treatment plans of patients and thus maintain continuity of care into the home. In addition they provide a domiciliary pathology service for patients who require frequent ongoing blood tests, thus helping to reduce the considerable stress on patients associated with frequent visits to hospitals. There are Royal District Nursing Service Liaison Nurses working in major teaching hospitals and some private hospitals to participate in discharge planning and ensure continuity of care.

The Service has an education department providing in-service education and post basic courses available to all district nurses in Victoria. In addition, all Royal District Nursing Service staff have access to and receive support from consultative staff such as the psycho-geriatric, mental health, breast prosthesis, stomal therapist nurses, physiotherapists and social workers.

A centralised administration and regionalised management model has been developed to ensure efficient and effective service delivery as the service expands. A quality assurance program has also been implemented to ensure care given is of excellent standard.

In 1984, there were seven organisations providing a Home Nursing service in the Melbourne metropolitan area and over eighty in country areas. The size of service varies, from a part time district nurse to the largest service, the Royal District Nursing Service with a staff of 377.

At the end of June 1982, it was recorded that 639 district nurses provided care for 43,600 patients and made 525,900 visits within Victoria.

South Australia (1894)

The Royal District Nursing Society of South Australia, initially the District Trained Nursing Society (D.T.N.S.), was inaugurated on 12th July, 1894 following 12 months work by a trained nurse in the Adelaide suburb of Bowden. This experiment, which was financed by the philanthropic Barr Smith and Elder families, had convinced founders, Dr. Allan Campbell, M.L.C., Rev. B. C. Stephenson and Nightingale nurse Matron Edith Noble, of the local demand for a district nursing service. Meanwhile, the financial viability of such a venture was being demonstrated by the Pirie Street Nursing Sisters' Association, which was organised by the inner-city Pirie Street Wesleyan Methodist Church but supported by public donations. Founder Rev. Joseph Berry was on the inaugural committee of the D.T.N.S., although his Pirie Street Nursing Sisters' Association remained independent until 1898. Subsequently, in 1937, the D.T.N.S. was re-named the District and Bush Nursing Society of S.A. Inc.; in 1965 the 'Royal' prefix was granted and in 1973 'Bush' was removed from the title. R.D.N.S. has been South Australia's sole district nursing service operating, with the aid of local committees and over 70 branches, throughout the State, including several cottage hospitals. The existence of country as well as metropolitan branches was recognised in the transitional title 'District and Bush Nursing Society'.

The objects of the Society have changed little over the years. They include:

- 'On the basis of need, provide skilled nursing care to the sick and disabled in their own homes.
- Assist in education and field experience programmes for nursing, medical and paramedical personnel in domiciliary nursing care.'

The promulgation of the *Home Nursing Subsidy Act 1956* assured the Society of both State and Federal Government grants, but the organisation has still maintained community funding of approximately 20 percent of its total budget.

The Society promotes a concept of 'family-centred care' offering and providing nursing care, promoting health and educating and encouraging families towards maximum independence, co-ordinating that care in the complex multi-disciplinary health care setting.

As staffing numbers increased and hospitals began to discharge patients earlier to home care services, R.D.N.S. regionalised its services, and now operates with 5 metropolitan and 2 country regions. Each regional supervisor is responsible for 25-30 field staff, and, particularly in country areas, covers a large geographical area.

To enhance the co-ordination of care between hospital and home based services, R.D.N.S. established the position of liaison sister in each metropolitan teaching hospital. This service facilitates discharge planning and the provision of increasingly complex nursing care in the home care setting.

Continuing nursing education is promoted through in-service programs and tertiary studies. Education programs enhance the skills of nursing staff and enable them to appreciate the social, cultural and ecological factors influencing health care. Specialist resource staff further support nurses as trends in community care change.

A recent major review of R.D.N.S. identified the need for a change to some financial, administrative and professional aspects and the development of a computerised data and recording system to assist the society to work more effectively in the regionally based multi-disciplinary health care setting.

The trend in South Australia for some country hospitals to provide 'outreach' nursing services has prompted the South Australian Health Commission to request the use of R.D.N.S. education and administrative support for these services and the utilisation of their problem oriented recording system. There is, therefore, a move to the utilisation of a common data base in domiciliary nursing in this State.

The Royal District Nursing Society of South Australia is committed to uphold a standard of excellence in its nursing practice and a quality assurance program, with documentation of standards for practice as the major, professional undertaking of the present and the future.

R.D.N.S. employs 210 full time equivalent registered nursing staff and has an additional 100 registered nurses available for casual employment. These nursing staff visited 15,000 patients making 427,000 visits and travelled 2,150,000 kilometres in the 1983-84 financial year.

Tasmania (1896)

In the same year that South Australia initiated its first district nursing organisation, some key women of the local Hobart Young Women's Christian Association came together with the aim of helping the aged, the incapacitated and the chronically ill. They called themselves the 'Amateur Nursing Band' and set themselves to learn about simple home-nursing, bed-making, cooking for invalids and home maintenance generally. The wife of the Governor of Tasmania became their president and in 1896 the 'Band' changed its name to the Hobart District Nursing Association. Today the Association employs the equivalent of 14 nursing staff and about 20 home help staff to complement the nursing care they provide. In the year ending June 1984 the Association made 32,500 visits.

New South Wales (1900)

For some fourteen to fifteen years prior to the founding of the District Nursing Association in Sydney, there were a few women devoted to the work of tending the sick poor in their own homes.

The formation of the District Nursing Association was largely the work of a Church of England Association, the Christian Social Union, which took up the work because it was considered that care of the sick poor was part of the social work of the Church.

From this strong Church of England base, the issue as to whether the District Nursing Association should be non-denominational was settled in 1906 when the rules of the Association were changed so that members of all religious bodies could work together.

The activities of the District Nursing Association were increased from year to year as funds became available for additional staff. By 1935, the association was incorporated as a second schedule hospital and was thenceforth governed by a board of directors appointed by the Government.

With the passing of the Home Nursing Subsidy Act in 1956, a number of local government authorities developed home nursing services and some country hospitals provided nurses for home nursing.

After 1956, the District Nursing Association rapidly expanded and in 1967–68, decentralisation became necessary. Branches were located at some hospitals, the first being located at Hornsby hospital. The name was changed to the Sydney Home Nursing Service.

The next significant growth period in community nursing was heralded by the introduction of the community health program in 1974. Some district nurses were seconded to multi-disciplinary teams working from community health centres. Today there are more than 250 community health centres in operation in New South Wales varying in size from the large polyclinic type of centre to the single community nurse based in outback areas.

The preferred delivery model of community nursing in the western metropolitan health region was the school based community nurse. The selection of this model was made after a pilot project was conducted in 1974 and was determined to be the best model to meet the needs of the population to be served. The school based nurse in the western metropolitan health region provides home nursing as well as the screening of school children and school health programmes.

The Sydney Home Nursing Service continues to be the largest single organisation delivering community nursing care and currently employs 200 registered nurses, 50 seconded registered nurses and 10 enrolled nurses. The Service operates from ten centres located at various public hospitals throughout Sydney's metropolitan area and one centre operating from Auburn community health centre. Thirty-eight of its nurses are seconded to community health centres.

Queensland (1904)

On Ash Wednesday 1904, the Mother's Union of the Anglican Church at Milton conducted a mission to assist poor, sick and needy parishioners.

The members of the Mother's Union decided to make-up 'Maternity Packs' to assist in a confinement, as most children were born at home. However, much of their good work was in vain as most people did not know what to do with a maternity pack! It was then decided to employ a nurse on a six month trial basis, to show the women how to use the packs. Thus began the first domiciliary nursing service in Queensland.

As the work increased, it was found necessary to appoint a committee of management and in 1910 the Mother's Union District Nursing Association was formed with most of its work in midwifery care. Payment for visits was 'whatever the patient could afford'. In 1937 the Mother's Union was dropped from the title and the service became known as the District Nursing Association. By 1965, the committee of management considered that a larger and more permanent body was required for the future growth of the association and the Brisbane diocese of the Church of England was asked to assume responsibility of the Association. The name 'St Luke's Nursing Service' was adopted in 1968. By 1984 the Service had branches at Cleveland, Milton and Zillmere and employed 37 full time staff.

The Blue Nursing Service. In early 1953 the Rev. Arthur Preston, superintendent minister of the West End Methodist Mission, responded to a request for a home nursing service. He initiated a meeting between Mr Norman Brandon, Mission Treasurer, Mrs Anderson, Registered Nurse and Rev. McKibbin, Newtown Methodist Mission.

They agreed that since there was a shortage of hospital beds and existing home nursing bodies were unable to cope with the demands of a growing population it seemed there was a great need for the establishment of a home nursing service. Financial support to the equivalent of $60, a commitment by the mission, enabled the venture to become a reality.

Generous assistance given by the press and media and members of the newly formed committee resulted in donations of money and offers of assistance.

Miss Olive Crombie was employed as the first registered nurse to work with this newly formed home nursing service, named the Blue Nursing Service after the blue uniforms chosen by the registered nurse. Blue was selected not only because it was more practical than white but because the color is associated with acts of care and mercy which was considered the emphasis of the Service.

The Blue Nursing Service like other home nursing services in Queensland has remained an outreach of the church. However, these services would not have survived or grown without the financial support of State and Commonwealth Governments.

By the end of 1956 the vision of a State wide community nursing service was becoming a reality with the setting up of regional centres. It also become apparent that a co-ordinating body was essential to provide guidance and direction, to negotiate with governments and to disburse funds provided by the State and Commonwealth Governments. This led to the development of the Blue Nursing Service Council in March 1957.

The Blue Nursing Service now has 59 centres from Mossman in the north to Coolangatta in the south and as far as Cunnamulla and Mount Isa in the west.

Each centre has a committee of 15 persons—9 appointed by parish council of the Uniting Church, 1 director—a member of the Uniting Church, and appointed by the parish council of the Uniting Church, and 5 elected by the community.

Early in 1974 a state nursing executive officer was appointed to become the official representative on all nursing matters. The Blue Nursing Service was successful in receiving monies for education through the community health program and by 1976 a nurse educator was appointed to co-ordinate education programs for the 47 centres throughout Queensland.

The education thrust commenced at that time has continued and the Blue Nursing Service council now employs 3 staff development officers and the role of state nursing executive officer has been incorporated into the position of director of nursing services.

The service also has 13 hostels, 10 nursing homes, 4 day therapy centres, 10 day care centres and employs 422 registered nurses.

Western Australia (1905)

The *Silver Chain Nursing Association* was formed originally to care for the sick and disadvantaged children of Perth. In fact, the original funding of the Association was by children themselves, each child sending a silver coin to become a 'link' in the 'Silver Chain'. As the years progressed, and with the improvement of child care services in Western Australia, the function of the Association changed from nursing children to nursing the elderly. 1985 finds the Association concerned with the health of *all* people in the community, no matter what their age or economic position.

The main object of the Silver Chain service is to offer people the opportunity of being cared for in their own homes, rather than being institutionalised when they are ill and to provide all the services necessary to enable them to do so with dignity, for as long as it is feasible. The services provided include home help, domiciliary physiotherapists for those patients who can't afford to obtain this service privately, also equipment for loan. There is also a hospital liaison service to facilitate continuity of care between hospital and home.

Silver Chain services are available in all major country towns in Western Australia. In towns where there is no resident doctor, or hospital facilities, Bush Nursing Medical Centres have been established. The sister at the Centre works in conjunction with the nearest doctor, sometimes by radio, in other instances, medical care is provided by a visiting doctor.

Early in the history of Silver Chain, it was recognised that not only was it desirable to care for people in their own homes, but also that accommodation should be available for people who are unable to be maintained safely at home. One metropolitan and two country residences for the frail aged have been provided as well as two sixty-one bed hospitals for the long term sick.

The services provided by Silver Chain are expanding year by year. The most recent innovation is a Hospice Palliative Care service which enables the terminally ill to remain in their own homes for as long as possible, free from pain and distress, rather than be admitted to hospital as soon as intensive nursing and medical care becomes necessary.

The Association works in close liaison with the State Government, public and private hospitals, and medical practitioners. It forms an integral part of the overall health care system within Western Australia.

Northern Territory (1929)

In 1929 Sister Constance Stone was appointed to provide an Infant Health and Home Nursing service to the people of Darwin. As far as is known, the service continued in this way until 1942 when Darwin was evacuated during World War 2. Immediately post-war, Sister Roslyn Gordon was employed by the Department of Works to provide health care to their employees, this later, extended to include their families. This appears to have been the only nursing activity at that time, outside the hospital sphere.

Around 1950 Sister Gordon was transferred to the Department of Health and, together with another nurse, established infant health and some home nursing care in Darwin.

Home nursing, allied with infant and school health work, was also carried out by a number of rural health nurses. Due to the vast distances, lack of transport and medical staff, these nurses were often the only source of health care.

Around 1960 a separate Home Nursing section within the Department of Health was established, together with sections for Infant and School Health.

A similar arrangement was made in Alice Springs with two nurses sharing infant health and home nursing duties.

In 1974 integration of Home Nursing, Infant and School Health sections took place and the generalist nurse concept was incorporated within the community health system. This concept embraces aspects of health education together with primary care within the context of the individual, the family and the wider community.

Within the major urban areas, it is estimated that bedside care in the home comprises between 35-40 per cent of the community health nurses work.

Until relatively recently the percentage of older people within Northern Territory communities has been small in comparison with other States, but as the population is becoming more stable this percentage is increasing. Adding to this cost constraints of long term hospital care, and earlier discharge patterns which are being established, it is reasonable to assume that the need for home nursing services will increase in the years to come.

Australian Capital Territory (1946)

The National Council of Women, which was composed of representatives from a number of women's organisations, initially supported the introduction of a Domiciliary Nursing Service in the A.C.T. in 1946.

Two Sisters founded this service, working for the Commonwealth Department of Health. They were taken on their rounds by Commonwealth Transport Department drivers until cars were provided for their use. Although the original nurses were conscious that there was a general belief that the Domiciliary Nursing Service was unlikely to continue, demand forced recruitment of more staff. These nurses held double certificates to enable them to cope with home deliveries (which in fact did not eventuate) but the demand for personal care, dressings, medication and injections grew—the latter was often the 'new drug, Penicillin'. The nurses worked under difficult conditions, for example, up to 19-21 days at a time.

Domiciliary nursing services were structurally changed after 1975, with the introduction of a general community health nursing model of service delivery, which was introduced to provide holistic nursing care within defined geographical areas. Community nurses provide domiciliary nursing care, and infant and child health services. Additionally, community nurses undertake preventative health maintenance programs, and offer counselling and information services to the public.

Changes in the focus of services in response to community needs

From the above it becomes apparent that all Home Nursing organisations developed because of identified health care needs in the community. The focus at the beginning was on the sick, poor and the disadvantaged. However, services were later made accessible to all people within the community as agencies began to receive increased Government subsidy.

Currently Home Nursing organisations function with various structures and operate under different auspices such as hospitals, voluntary bodies and local government. Nurses working in these organisations are unified in their shared concern and commitment to providing quality care in the community.

Rapid development in medical and technological services has placed new demands on nurses working in the community. Over recent years people are being discharged from hospital earlier and at a more acute stage of illness and nurses have to undertake further in-service, post-basic, and/or post graduate education in order to continue to provide quality care.

With increasing mobility of nuclear families and increasing numbers of women entering the work force, more and more elderly persons are living alone without families to care for them. This has presented a challege for nurses in the community as to how best to meet the needs of the elderly and the chronically ill given finite resources. This challenge has prompted Home Nursing organisations to develop a role for auxiliary health workers to meet these needs. These new workers include health service aides in N.S.W., paramedical aides in S.A., home care aides in Western Australia and home health aides in Victoria. New and innovative ways of responding to identified needs in local communities, whilst at the same time maintaining accountability for standards of care, will present challenges for the future of Home Nursing organisations in Australia.

This brief outline of Home Nursing in Australia is a record of achievement. Recognition of the extended roles of nurses, based on their knowledge, expertise and experience, is paramount as is the recognition of their educational needs if these services are to continue to be effective.

CHAPTER 11

LAW AND ORDER

THE LAW IN AUSTRALIA

Nature and composition

The laws of a country represent the common body of rules, whether proceeding from legislation, executive action, court judgments or custom, that a state or community recognises as binding on its citizens or members, and which are enforceable by judicial means. In Australia, the law consists basically of:

- Acts passed by the Federal Parliament acting within the scope of its powers under the Australian Constitution, together with regulations, rules and orders made under such Acts;
- Acts and Ordinances passed in respect of the Australian Capital Territory and the Northern Territory of Australia, together with regulations, rules and orders made under such Acts and Ordinances;
- Acts passed by State Parliaments and the Legislative Assembly of the Northern Territory, together with regulations, rules and orders made under such Acts;
- so much of the common or statute law of England that still applies to Australia and remains unrepealed; and
- the common law, consisting of judicial decisions.

These various laws relate to a number of subject-matters, including constitutional law, criminal law, civil law, family law and industrial law.

Federal and State responsibilities

Under the Australian Constitution, the Commonwealth of Australia is empowered to make laws in relation to certain matters specified in the Constitution, e.g. in relation to trade and commerce, taxation, defence and external affairs. In relation to some of these matters, the powers of the Commonwealth are concurrent with those of the Australian States and Territories in that they may be exercised by either the Commonwealth, the States or the Territories. In relation to some other specified topics the Commonwealth's power is absolute, and in all areas of Federal jurisdiction, Commonwealth laws are binding on the Australian States and Territories.

The Australian States and Territories have independent jurisdiction in all matters not otherwise specifically invested in the Commonwealth of Australia and it is the statute law and the common law of the States and Territories that primarily govern the day-to-day lives of most Australians. With certain exceptions, such as traffic laws, State and Territorial law applies normally only to persons who are residents of the State or Territory concerned and to things located or events occurring within such State or Territory.

The common law is uniform throughout Australia although statute law often varies between the States and Territories. However, some of the problems arising from these differences have become recognised over recent years and attempts are now being made, wherever possible, towards the enactment of uniform laws in areas of State and Territory jurisdiction.

Administration

Administration of the law in Australia is undertaken by the responsible governments concerned, principally through Federal, State and Territorial Police Forces, and State and Territorial corrective or penal services. There is no independent Federal corrective service, and the relevant State or Territorial agencies provide corrective services for Federal offenders.

The various law enforcement agencies involved in the administration of law operate in such a way that the activities of one agency may affect the activities of another, e.g. a criminal offence reported to the police may lead to the arrest, charge and court appearance of the offender, and subsequent provision of corrective (e.g. imprisonment, probation) or welfare services. The agencies involved, and the relationship between them, may vary according to the laws, agencies and types of matters or offenders involved.

Law reform

Reform of the law is undertaken principally through State and Commonwealth Parliaments and Attorneys-General acting on recommendations provided by State and the Australian Law Reform Commissions, and by State Supreme and Federal Courts.

Law Reform Commissions have been established as statutory authorities in all States (except South Australia) to undertake review of State laws, and report findings and recommendations for reform of those laws, to State Parliaments and Attorneys-General. (In South Australia, a Law Reform Committee was established by proclamation to perform similar functions in that State.) In addition, in Victoria there is a Chief Justice's Law Reform Committee and a Victorian Legal and Constitutional Committee established under the *Parliamentary Committees (Joint Investigatory Committees) Act 1982*. These agencies have functions to recommend reform of the law. Acceptance of recommendations depends upon governmental and parliamentary reaction to the proposals.

The Australian Law Reform Commission

The Australian Law Reform Commission (ALRC), which commenced operations in 1975 under the *Law Reform Commission Act 1973*, was established to report on the review, simplification and modernisation of those laws concerning matters consigned by the Australian Constitution to the jurisdiction of the Commonwealth Parliament, and to consider proposals for the uniformity of laws of the States and Territories. The Commission is required to make reports to the Attorney-General arising out of such review or consideration, and to make such recommendations as it thinks fit.

The ALRC has assumed the functions formerly undertaken by the A.C.T. Law Reform Commission, and has the responsibility for review of Territorial law operating in the Australian Capital Territory.

In undertaking its functions, the Commission follows the normal procedure of law commissions where possible. Upon receipt of a reference, the Commission advertises and calls for public submissions in relation to the reference, and prepares consultative papers examining the issues for distribution among groups thought to have a special interest in the subject matter. Public sittings are conducted, and in the light of submissions received, a final report containing draft legislation is prepared for submission to the Attorney-General. The Commission, which consisted of five full-time, and seven part-time members at 30 June 1984, makes extensive use of honorary consultants.

To 30 June 1984, the Commission has completed reports on the following references: complaints against police and criminal investigation; alcohol, drugs and driving; consumers in debt; defamation; sentencing of federal offenders; human tissue transplants; lands acquisition and compensation; insurance intermediaries; child welfare; insurance contracts and privacy. Legislation following the recommendations contained in these reports have been enacted in some cases. In other cases, the proposals made by the Commission are under consideration by Parliament or the appropriate Commonwealth Department. Current references include debt recovery laws, access to court (standing to sue and class actions), Aboriginal customary laws, evidence, service and execution of process, Admiralty jurisdiction, foreign state immunity, contempt of court, general insolvency, matrimonial property, domestic violence in the A.C.T., and community law reform.

COURTS: STRUCTURE AND FUNCTIONS

Federal Courts

The judicial power of the Commonwealth of Australia is vested in the High Court of Australia, in the Federal courts created by the Federal Parliament and in the State courts invested by Parliament with Federal jurisdiction. The nature and extent of the judicial power of the Commonwealth is prescribed by Chapter III of the Australian Constitution. For details of the Commonwealth of Australia Constitution Act *see* Year Book No. 67.

High Court of Australia

The Australian Constitution vests the judicial power of the Commonwealth in the High Court, in such other Federal courts as the Parliament creates, and in such other courts as it invests with Federal jurisdiction. The High Court consists of a Chief Justice and six other Justices. Sittings of the Court are now held mainly at its seat in Canberra. The High Court has both original and appellate jurisdiction.

The Constitution gives original jurisdiction to the High Court in all matters:

(i) arising under a treaty;
(ii) affecting consuls or other representatives of other countries;
(iii) in which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party;

(iv) between States, or between residents of different States, or between a State and a resident of another State; and
(v) in which a writ of mandamus or prohibition, or an injunction, is sought against an officer of the Commonwealth.

The High Court may remit to the Federal Court of Australia matters within (iii) on previous page.

The Constitution allows the Parliament to give the High Court additional original jurisdiction within limits. The Parliament has given the Court such jurisdiction in all matters arising under the Constitution or involving its interpretation and in trials of indictable offences against the laws of the Commonwealth. The Court is also a Court of Disputed Returns.

State Courts are excluded from exercising jurisdiction in relation to some matters over which the High Court has jurisdiction. These matters are:

(i) matters arising directly under any treaty;
(ii) suits between States, or between persons suing or being sued on behalf of different States, or between a State and a person suing or being sued on behalf of another State;
(iii) suits by the Commonwealth, or any person suing on behalf of the Commonwealth, against a State, or any person being sued on behalf of a State;
(iv) suits by a State, or any person suing on behalf of a State, against the Commonwealth or any person being sued on behalf of the Commonwealth; and
(v) matters in which a writ of mandamus or prohibition is sought against an officer of the Commonwealth or a Federal court.

The High Court may, however, remit to a Federal Court of Australia, or to a State or Territory court, a matter commenced in the High Court by virtue of its executive jurisdiction shown under (i) to (iv) above. Matters referred to in (v) above, may, subject to certain exceptions, be remitted from the High Court to the Federal Court of Australia, but not to a State or Territory court.

Any matter before a State or Territory or Federal court which arises under the Constitution or involves its interpretation may be removed into the High Court.

The Constitution also gives the High Court appellate jurisdiction. Subject to such exceptions and regulations as are prescribed by the Parliament, the High Court can hear appeals from any decision of:

(i) any Justice or Justices exercising the original jurisdiction of the High Court;
(ii) any other Federal court, or court exercising Federal jurisdiction; and
(iii) the Supreme Court of any State, or of any other State Court from which an appeal lay to the Privy Council at the time the Commonwealth was established.

The High Court has to give special leave before an appeal can be brought to it from the Supreme Court of a State, any other Court of a State exercising Federal jurisdiction or the Federal Court of Australia.

Appeals to the Privy Council

The jurisdiction which the Privy Council formerly had to hear appeals from decisions of the High Court has, for all practical purposes, disappeared (see *Privy Council (Limitation of Appeals) Act 1968* and *Privy Council (Appeals from the High Court) Act 1975*).

Federal Court of Australia

The Federal Court of Australia was created by the *Federal Court of Australia Act* 1976 and began to exercise its jurisdiction on 1 February 1977.

The Court consists of the Industrial Division and the General Division. Matters under the *Conciliation and Arbitration Act 1904* are dealt with in the Industrial Division. All other matters are dealt with in the General Division. The Court sits as required in each State and in the Australian Capital Territory and the Northern Territory.

The Court has such original jurisdiction as is invested in it by laws made by the Parliament. Except in cases where a hearing had actually started before 1 February 1977, the jurisdiction formerly exercised by the Federal Court of Bankruptcy and the Australian Industrial Court has been transferred to it. Important jurisdiction in the Court includes matters under the *Administrative Decisions (Judicial Review) Act 1977* and certain matters under the *Trade Practices Act 1974*.

The Federal Court of Australia has been conferred with original jurisdiction, concurrent with that of the High Court with respect to matters in which a writ of mandamus or prohibition is sought against an officer of the Commonwealth.

The Federal Court of Australia has appellate jurisdiction over decisions of single judges of the Court, decisions of the Supreme Courts of the Territories and certain decisions of State Supreme Courts exercising Federal jurisdiction (for example, under the *Income Tax Assessment Act 1936* and the *Patents Act 1952*).

Australian Industrial Court and the Federal Court of Bankruptcy

Matters in which a hearing had begun in the Australian Industrial Court or the Federal Court of Bankruptcy before 1 February 1977 continue to be heard in these Courts. Otherwise, the jurisdiction formerly exercised by these Courts is now vested in the Federal Court of Australia.

Family Law

The *Family Law Act 1975* commenced operation on 5 January 1976. It introduced a new law dealing with the dissolution and nullity of marriage, custody and welfare of the children, maintenance and the settlement of property between the parties to a marriage. The Act also created the Family Court of Australia as a specialist court dealing only with matrimonial and associated proceedings.

The main change made by the Act is that fault is no longer taken into account as a ground for divorce. The Act provides that there is only one ground for divorce—that of irretrievable breakdown of a marriage which is established if the husband and wife have separated and have lived apart from each other for 12 months and there is no reasonable likelihood of reconciliation.

Proceedings under the Family Law Act are dealt with by the Family Court of Australia and by certain other courts in the States and Territories. Except in certain areas of Western Australia, Magistrates' Courts and Courts of Petty Sessions have jurisdiction in all proceedings under the Act except for:

- proceedings for dissolution or nullity of marriage; and
- defended proceedings for custody or concerning property worth more than $1,000, unless the parties agree to the matter being heard by a Magistrates' Court or the Court of Petty Sessions.

A State Family Court has been established in Western Australia to deal with family law matters in that State.

Under the Act, great emphasis is placed on the counselling services available through the Family Courts to persons involved in proceedings and to any persons who have encountered marriage problems. It is not necessary to start proceedings to make use of these services.

Family Court of Australia

The Judges of the Family Court are chosen because of their suitability to deal with matters of family law by reason of their training, experience and personality. They do not wear wigs and gowns. Staff attached to the Court include trained counsellors and legally qualified Registrars and Deputy Registrars.

Proceedings under the Act in the Family Court are heard in private. No publicity about any proceedings under the Act is permitted, unless otherwise directed by the Court. The publication of law court lists and law reports, or other publications of a technical character directed to the legal or medical professions, is exempted from this prohibition.

The Family Court aims to be a "helping" court. A Principal Director of Court Counselling and a staff of court counsellors are attached to the Court to help parties to a marriage settle their problems. This help is available to parties who are not even contemplating divorce or other proceedings, but who may need counselling assistance. These services complement those already provided by voluntary marriage counselling agencies. People may approach the Court counselling service directly—in person, in writing, by telephone or through a legal practitioner.

A Court exercising jurisdiction under the Family Law Act is required to have regard to the following principles:

- the need to preserve and protect the institution of marriage as the union of a man and a woman to the exclusion of all others voluntarily entered into for life;
- the need to give the widest possible protection and assistance to the family as the natural and fundamental group unit of society, particularly while it is responsible for the care and education of dependent children;
- the need to protect the rights of children and to promote their welfare; and
- the means available for assisting parties to a marriage to consider reconciliation or the improvement of their relationship to each other and to the children of the marriage.

In relation to the guardianship and custody of children, the Family Law Act provides that both parties to a marriage have, subject to a court order to the contrary, the joint guardianship and custody of any children of the marriage. However, one parent can ask the Court for sole custody of a child even if no divorce has been sought.

In disputes over custody, a child may be separately represented. The paramount consideration for the court in the determination of all such disputes is the welfare of the child. However, where a child has reached 14 years of age the Court may not make an order contrary to his or her wishes unless there are special circumstances. In relation to the welfare of children a divorce decree usually will not become effective unless the Court is satisfied that proper arrangements have been made by the parties for the welfare of their children.

Under the Family Law Act, the right of one party to a marriage to maintenance from the other is based on the needs of the party seeking it and the ability of the other party to pay. An application for maintenance may be made by either husband or wife, and irrespective of whether the parties intend to divorce.

There are specific matters for the Court to consider when it is dealing with maintenance applications. These include:

- the age and state of health of the parties;
- the income, property and financial resources of each of the parties and their financial obligations;
- whether either party is entitled to a pension or superannuation;
- the length of the marriage and what is an appropriate standard of living for each party;
- whether either party has to care for children;
- the extent to which the marriage has affected the earning capacity of the applicant; and
- the possibility of the applicant taking on a training course or further educational course to improve his or her employment prospects.

The Act also provides for the registration and court approval of maintenance agreements made by the parties.

Both parties are liable to maintain their children according to their respective means and the Court is guided by similar considerations in deciding what order to make.

The Court has power to settle disputes about the family assets, including the power to order a transfer of legal interests in property. When dealing with these disputes, the Court considers the interest each party has in the property, the contributions made by each party during the marriage, and the matters the Court is required to consider in dealing with maintenance applications. The Act directs the Court to look both at the financial contributions made by the parties and at the contribution made by either party in the capacity of homemaker or parent.

The Court has pamphlets printed in Arabic, Turkish, Italian, Greek, Serbo-Croat, Mandarin Chinese, Malaysian and Spanish to explain the operation of the Australian family law.

State and Territory Courts

Australian State and Territory courts have original jurisdiction in all matters brought under State or Territory statute laws, and in matters arising under Federal laws, where such matters have not been specifically reserved to courts of Federal jurisdiction. Most criminal matters, whether arising under Federal, State or Territory law, are dealt with by State and Territory courts.

Each State and Territory court system is organised and operates independently. However, within each system, which comprises both courts of general jurisdiction and specialist courts and tribunals, the courts are organised hierarchically according to the nature of the matters with which they may deal.

Appeals

County and District Courts and State and Territory Supreme Courts have jurisdiction to hear appeals against the decisions of lower courts and some specialist tribunals.

The procedures concerning the right of appeal are laid down by statute in each State and Territory, and appeals may be lodged against matters such as the correctness of the verdict or the severity of the sentence imposed. However, appeals against Supreme Court decisions are heard in most States by a Full Bench of the Supreme Court which usually comprises three judges of the Supreme Court. Appeals from State Supreme Court decisions may be taken to the Federal Court of Australia or the High Court of Australia or the Privy Council depending on the nature of the matter involved. Appeals from decisions of Territory Supreme Courts are taken to the Federal Court of Australia or to the High Court if special leave is given by the High Court.

Special Courts and Tribunals

Each Australian State and Territory administers particular areas of the law through specialist courts or tribunals, such as Small Claims Courts, Licensing Courts, etc. These courts or tribunals deal primarily with civil matters or matters of an administrative nature.

Courts of Marine Inquiry

Matters which come within the jurisdiction of Courts of Marine Inquiry are contained in the *Navigation Act 1912*. The principal areas of jurisdiction are to make inquiries into casualties, all missing ships, or entailing loss of life on or from ships and to charges of incompetency or misconduct.

When the Department of Transport is advised of an incident which may warrant the convening of a Court of Marine Inquiry, the Minister will appoint an officer to conduct a Preliminary Investigation. The officer will conduct interviews with the parties involved and based on the results of these interviews advise the Minister as to whether or not the circumstances warrant a request by the Minister for a Court of Marine Inquiry to be convened. The Governor-General by proclamation establishes the Court of Marine Inquiry. Findings of the Court are forwarded to the Minister as well as any observations the Court thinks fit to make.

Statistics

Information relating to the operation of courts in particular Australian States may be obtained from the respective State Year Books.

Administrative Bodies

Administrative Appeals Tribunal

The Administrative Appeals Tribunal was established by the *Administrative Appeals Tribunal Act 1975* and came into operation on 1 July 1976. Its President is a Judge of the Federal Court of Australia. It is an independent tribunal whose function is to review decisions made by Commonwealth Ministers, authorities and officials under certain laws of the Commonwealth. The Tribunal is able to substitute its own decision in those areas in which it has jurisdiction. The Tribunal has jurisdiction under more than 160 enactments including decisions under the *Social Services Act 1947*, *Compensation (Commonwealth Government Employees) Act 1971*, *Migration Act 1958*, *Customs Act 1901*, *Export Market Development Act 1974*, the Air Navigation Regulations and the *Freedom of Information Act 1982*. Further additions to the Tribunal's jurisdiction are made from time to time.

The Principal Registry is in Canberra and there are Tribunal Registries in each capital city.

The Administrative Review Council was also established by the *Administrative Appeals Tribunal Act 1975*. The principal functions of the Administrative Review Council are to make recommmendations to the Attorney-General on rights of review of administrative decisions and on the procedures of administrative tribunals.

Administrative Decisions (Judicial Review) Act 1977

The *Administrative Decisions (Judicial Review) Act 1977*, which came into operation on 1 October 1980, provides for judicial review in the Federal Court of Australia of administrative action taken under Commonwealth legislation. The Court is empowered where an order of review is sought by an aggrieved person to review the lawfulness of a decision, conduct leading up to the making of a decision or circumstances where there has been failure to make a decision. The grounds on which review may be sought and the powers of the Court are set out in the Act. In many cases, a person who is entitled to seek judicial review in respect of an administrative decision may seek a statement of reasons for the decision from the decision-maker.

Commonwealth Ombudsman

The office of the Commonwealth Ombudsman was established by the *Ombudsman Act 1976* and commenced operation in June 1977. Additional responsibilities have been given to the office through the *Complaints (Australian Federal Police) Act 1981*, the *Freedom of Information Amendment Act 1983* and the *Ombudsman Amendment Act 1983*. The Ombudsman is empowered to investigate complaints about the administrative actions of Commonwealth Government departments and prescribed authorities, and complaints about the conduct of members of the Australian Federal Police, and its practices and procedures. Under the *Ombudsman Amendment Act 1983* the Ombudsman is empowered to investigate complaints from members or former members of the Australian Defence Forces relating to the service in the Defence Forces or as a consequence of a person serving or having served in the Defence Forces.

The Ombudsman is also empowered to investigate complaints about the actions of agencies in dealing with requests made under the *Freedom of Information Act 1982* and may represent a complainant before the Administrative Appeals Tribunal to seek review of a refusal to give access.

Where the Ombudsman is of the opinion, after completing an investigation into a complaint, that remedial action is required he reports to the department or authority concerned and may include any recommendations he thinks fit to make. If the department or authority fails to comply with a recommendation contained in his report, the Commonwealth Ombudsman may report to the Prime Minister and to the Federal Parliament. The Commonwealth Ombudsman is located in Canberra and is represented in each State capital city and Darwin.

The Human Rights Commission

The Human Rights Commission was set up by the Commonwealth Government in December 1981 to *promote* and *protect* human rights in Australia. The human rights with which it is concerned are those set out in six United Nations instruments:

- The International Covenant on Civil and Political Rights;
- The Declaration of the Rights of the Child;

- The Declaration on the Rights of Mentally Retarded Persons;
- The Declaration on the Rights of Disabled Persons;
- The International Convention on the Elimination of All Forms of Racial Discrimination; and
- The Convention on the Elimination of All Forms of Discrimination Against Women.

The Commission works under three Acts—the *Human Rights Commission Act 1981* and the *Racial Discrimination Act 1975*, and the *Sex Discrimination Act 1984*.

Under the Human Rights Commission Act the functions of the Commission are fourfold:

(i) to review legislation for its consistency with human rights;
(ii) to inquire into and, where practicable, effect a settlement of issues, including complaints, that have come to its notice;
(iii) to promote understanding, acceptance and public discussion of human rights; and
(iv) to undertake and co-ordinate research and educational programs affecting human rights.

Where the Commission considers a change in Commonwealth law or practice is required, it is to report this to the Attorney-General, and its reports must be made public by tabling in the Parliament.

Under the Racial Discrimination Act, the Commission is charged with functions in relation to racial discrimination similar to those numbered (ii) to (iv) above in relation to human rights generally.

Under the Sex Discrimination Act, the Commission is charged with functions in relation to sex discrimination similar to those numbered (i) to (iv) above.

Investigation and resolution of complaints made under the Racial Discrimination Act is carried out by the Commissioner for Community Relations on behalf of the Commission.

Complaints made under the Sex Discrimination Act are investigated by the Sex Discrimination Commissioner who endeavours, by conciliation, to reach a settlement of the matter. Complaints which cannot be settled by conciliation can be referred to the Human Rights Commission.

The Racial Discrimination Act applies regardless of whether the discrimination falls within Commonwealth, State or Northern Territory jurisdiction. The human rights function is related to Commonwealth laws and practices under those laws, although the Human Rights Commission Act provides for co-operation with State agencies in the promotion of human rights. The Sex Discrimination Act applies throughout Australia, however, it may not apply to every act of discrimination because of some limitations on Commonwealth powers. In States that have anti-discrimination legislation, people making complaints have a choice of bringing their complaints under either the State Act or the Commonwealth Act; but a complaint cannot be made under both Acts.

Freedom of Information Act 1982

The *Freedom of Information Act 1982* which came into operation on 1 December 1982 has two objectives:

- to make available to the public information about the rules, practices and operations of Commonwealth Government departments and authorities; and
- to create a general right of access to documents in the possession of Ministers and agencies.

In order to achieve these objectives the Act defines the rights of members of the public to obtain access to documents, and sets out a range of obligations and restrictions on departments and the public for exercising these rights.

The right of access does not extend to all documents. Exempt are:

- certain documents to which the *Archives Act 1982* applies;
- documents affecting national security, defence, international relations and relations with States;
- Cabinet and Executive Council documents;
- internal working documents (subject to certain limitations on what may be exempt);
- documents affecting enforcement of the law and protection of public safety;
- other documents exempt by reason of secrecy provisions of other enactments, financial or property interests of the Commonwealth, personal privacy, legal professional privilege etc.;
- documents made available for purchase or open access upon payment of a fee; and
- documents created before 1 December 1982.

However, there are two exemptions to this last restriction on access:

- a person has a right of access to documents created before 1 December 1982, necessary to the understanding of a document already legally in that person's possession; and
- individuals have the right of access to documents which predate the commencement of the Act by up to five years, providing that the documents relate to the individual.

The public is not required to provide reasons for requesting access to documents. However, all requests under the Act should be in writing and provide such information concerning the document as is reasonably necessary to enable a responsible officer to identify the document. Where a person wishes to make a request or has made a request that does not comply with the provisions of the Act relating to requests for access it is the duty of the agency to take reasonable steps to assist the person to make the request in a manner that complies with the Act.

Provisions exist whereby a person may apply to have an amendment made to information relating to that person's own personal affairs.

Royal Commissions—Commonwealth

Australian Governments have from time to time established Royal Commissions to inquire into, and report on, matters of public concern.

A Royal Commission is established by the Governor-General, on the advice of the Government, issuing a commission to a person or persons to inquire into and report on specified matters. At the end of its inquiry, a Royal Commission presents its report to the Governor-General for consideration by the Government.

The power to issue Letters Patent to inquire is a prerogative of the Crown. The *Royal Commissions Act 1902* confers powers on a Royal Commission to compel the attendance of persons, the giving of evidence, and the production of papers. It also creates a number of offences (e.g. failure to attend a Royal Commission when summoned, or to produce papers) and gives some protection to Commissioners and witnesses against legal liability. The constitutional foundation of the Royal Commissions Act is section 51 (xxxix) of the Constitution, which provides that the Commonwealth Parliament may make laws with respect to 'matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or office of the Commonwealth'.

LETTERS PATENT ISSUED FROM 1.7.79 TO 30.6.84

Name of Royal Commission	*Commissioner(s)*	*Date of issue of Letters Patent*
Commission of Inquiry into the Efficiency and Administration of Hospitals (joint Commonwealth/ Tasmania/ Queensland/ Western Australia Royal Commission)	Mr J. H. Jamison, O.B.E. (Chairman) Mr C.W.L. De Boos Dr J. S. Yeatman	29 August 1979
Commission of Inquiry into the Viability of the Christmas Island Phosphate Industry	Mr W. W. Sweetland	20 December 1979
Royal Commission on the Activities of the Federated Ship Painters and Dockers Union (joint Commonwealth/Victoria Royal Commission)	Mr F. X. Costigan, Q.C.	10 September 1980
(a) Royal Commission of Inquiry into Drug Trafficking (joint Commonwealth/New South Wales/Victoria/Queensland Royal Commission)	The Hon. Mr Justice D. G. Stewart	(a) 25 June 1981
(b) Royal Commission of Inquiry into the Activities of the Nugan Hand Group (joint Commonwealth/New South Wales Royal Commission)		(b) 28 March 1983
Royal Commission into the Activities of the Australian Building Construction Employees' and Builders Labourers' Federation (joint Commonwealth/Victoria Royal Commission)	Mr J. S. Winneke, Q.C.	20 August 1981
Royal Commission into Australian Meat Industry (joint Commonwealth/Victoria Royal Commission)	The Hon. Mr Justice A. E. Woodward, O.B.E.	12 September 1981
Royal Commission on the Use and Effects of Chemical Agents on Australian Personnel in Vietnam	The Hon. Mr Justice P. G. Evatt, D.S.C.	13 May 1983
Royal Commission on Australia's Security and Intelligence Agencies	The Hon. Mr Justice R. M. Hope, C.M.G.	17 May 1983
Commission of Inquiry into Compensation Arising from Social Security Conspiracy Prosecutions	The Hon. Dame Roma Mitchell, D.B.E.	9 February 1984

FINAL ROYAL COMMISSION REPORTS PRESENTED FROM 1.7.79 TO 30.6.84

Name of Royal Commission	*Date of presentation*	*Tabled in the Parliament*
Australian Royal Commission of Inquiry into Drugs	21 December 1979	18 March 1980
Commission of Inquiry into the Viability of Christmas Island Phosphate Industry	15 February 1980	20 February 1980
Commission of Inquiry into the Efficiency and Administration of Hospitals	29 December 1980	25 February 1981
Royal Commission into the Activities of the Australian Building Construction Employees' and Builders Labourers' Federation	27 May 1982	20 October 1982
Royal Commission into Australian Meat Industry	17 September 1982	21 September 1982
Royal Commission of Inquiry into Drug Trafficking (Clark Reference)	28 February 1983	31 May 1983

Consumer Affairs

The Commonwealth involvement in consumer affairs derives substantially from the *Trade Practices Act 1974*. The Minister for Home Affairs and Environment has responsibility for Part V (Consumer Protection) of the Act which deals with unfair practices, provides private law rights against sellers, manufacturers and importers, and provides for product safety and information standards.

The function of the Consumer Affairs Division of the Department of Home Affairs and Environment is to advise the Minister on matters such as the operation of Part V of the Act, the banning of unsafe goods under the Act, the development of product safety and information standards under the Act, the development of voluntary product recall codes, uniform legislation proposals, the development of consumer education programs, the operation of a national consumer complaints statistics system, and on other developments in the economy affecting consumers. The National Consumer Affairs Advisory Council provides independent advice to the Minister on consumer affairs issues. The members of this Council have backgrounds in consumer affairs, industries, trade unions and government.

The Trade Practices Act, including its consumer protection provisions, is adminstered by a statutory authority, the Trade Practices Commission. It receives complaints from consumers but is primarily concerned with issues of national significance. The activities of the Trade Practices Commission are distinct from those of State and Territory consumer affairs agencies which administer their own legislation and provide the principal consumer complaint handling mechanisms.

Co-ordination of consumer affairs activities is undertaken by the Standing Committee of Consumer Affairs Ministers and through meetings of Officers of Consumer Affairs. There is also a Commonwealth/State Consumer Products Advisory Committee to provide a co-ordinated approach to product safety and information matters.

In addition to this, the Australian Federation of Consumer Organisations (AFCO) receives an annual grant under the Commonwealth's Grant-in-Aid Scheme. AFCO comprises a membership of 60 consumer and community groups and was set up with Commonwealth sponsorships to represent the consumer view to all levels of government and to industry.

Legal Aid

The purpose of providing legal aid is to ensure that no person involved in a legal dispute or action should be without legal assistance by reason of not being able to pay for it, and is based on the notion of justice and equity before the law.

Legal aid in Australia is delivered through a variety of schemes operated at Federal, State and local levels. The principal schemes are those of the Australian Legal Aid Office, the legal aid commissions (which operate in five States and the Australian Capital Territory) and the Aboriginal legal services. In addition there are numerous community based legal aid agencies and certain law society schemes.

Historically, legal aid schemes in Australia were initiated by State governments with Public Solicitor or Public Defender schemes in Queensland, Victoria and New South Wales. The Law Society in South Australia began a legal assistance scheme in 1933, and law society schemes followed in other States. In 1973 the Australian Legal Aid Office was established to provide legal assistance in the Federal area.

It is now the policy of the Commonwealth Government that legal aid other than that given by Aboriginal legal services and voluntary and community agencies be provided in each State and Territory through a single independent statutory commission, established by State or Territory legislation. Under this policy, legal aid is provided by both salaried and private lawyers and funded by the Commonwealth in Federal matters. The States continue to fund legal assistance provided in relation to State matters. Pursuant to agreements entered into between the Commonwealth and the States, independent statutory commissions providing legal advice and assistance in both Commonwealth and State matters have been established in Queensland, South Australia, Victoria, Western Australia and the Australian Capital Territory. A statutory commission has also been established in New South Wales, but its functions do not extend to Commonwealth matters. Legal aid commissions have not yet been established in Tasmania and the Northern Territory, and in these places, as well as New South Wales, the Australian Legal Aid Office continues to provide legal advice and assistance in Commonwealth matters.

Aboriginal legal services operate in all States and Territories and are funded by the Department of Aboriginal Affairs. Community law centres which also operate in most States are funded by Commonwealth, State and in some instances local government.

The Commonwealth Attorney-General administers a growing area of legal assistance in special federal areas outside the scheme of independent statutory commissions. This assistance is provided under various Commonwealth Acts, (such as the *Conciliation and Arbitration Act 1904*, *Administrative Appeals Tribunal Act 1975* and the *Trade Practices Act 1974*) and administrative schemes (e.g. aid for Public Interest and Test Cases and for cases involving the recovery of children removed overseas).

The Commonwealth Legal Aid Council, established pursuant to the *Commonwealth Legal Aid Act 1977* has the broad function of advising the Commonwealth Attorney-General on matters relating to the provision of Legal Aid in Australia. The Council Secretariat is located in the Australian Legal Aid Office Division of the Commonwealth Attorney-General's Department.

Selected details of the income and expenditure of major Australian Legal Aid schemes during 1982–83, and further information on the operation of these schemes are available from Annual Reports of the Commonwealth Legal Aid Council and the Commonwealth Attorney-General's Department or by writing to the Secretary, Commonwealth Legal Aid Council, Attorney-General's Department, Barton, A.C.T. 2600.

The Police

The primary duties of the police are the prevention and detection of crime, the protection of life and property, and the enforcement of law to maintain peace and good order. In addition, they may perform a variety of other duties in the service of the State, including the regulation of street traffic, acting as clerks of petty sessions, crown land bailiffs, foresters, mining wardens and inspectors under the Fisheries and various other Acts. With the exception of the Australian Federal Police, police forces in Australia are under the control of the State and Northern Territory Governments, but their members perform certain functions for the Commonwealth Government, such as aliens registration officers, and in conjunction with the Australian Federal Police and other Commonwealth officers, they police various Commonwealth Acts and Regulations.

Australian Federal Police

The Australian Federal Police (AFP) was formed in October 1979. It performs normal police duties in the Australian Capital Territory, and is the principal agency for the enforcement of Federal laws, and the protection of Commonwealth Government property, and property and interests at buildings and establishments under Commonwealth Government control, and co-ordinates some of the work of other investigation and law enforcement agencies in Australia. The AFP also attaches officers to the Commonwealth's Island Territories' Police Forces (the Territories of Christmas and Norfolk Islands) and the United Nations Peace-keeping Force in Cyprus.

The AFP operates the Australian Federal Police Training College in Barton A.C.T. The force has its head office in Canberra, and district offices in each State capital.

Police strengths

The active strengths of non-civilian police personnel in police forces in Australia are shown in the following table:

POLICE FORCES

Year	*AFP*	*NSW*	*VIC*	*QLD*	*SA*	*WA*	*TAS*	*NT*
At 30 June—								
1981	2,655	9,271	8,196	4,554	3,220	2,656	1,029	551
1982	2,702	9,388	8,329	4,543	3,249	2,693	1,041	566
1983	2,811	9,797	8,499	4,869	3,297	2,824	1,006	634

Crime Victim Survey 1983

During the period February 1983 to January 1984 the ABS conducted a household survey throughout Australia to obtain information about selected incidents of crime of which the household or person had been the victim in the twelve months preceding the date of survey.

The survey enquired about incidents of breaking and entering, motor vehicle theft, household property theft, other theft, assault and sexual assault.

Questions were asked of all household residents aged 15 years and over except for sexual assault where the questions were only asked of females aged 18 years and over. The survey covered 18,000 households and 37,000 persons. Questions on breaking and entering and household property theft were asked only of one adult member of the household.

The intention of the survey was to explore the circumstances of each type of crime to determine the degree of seriousness, injury and loss, the location and time of particular incidents, the known characteristics of the offender, whether the matter was reported to the police and the reasons why it was/was not reported.

Preliminary estimates indicate that 8.9 per cent of households in Australia experienced a break and enter and/or a household property theft, in the preceding twelve months; of these, one in five had more than one such experience within the period.

An estimated 1,121,000 people (preliminary figure), or 9.7 per cent of the Australian population aged fifteen years and over, were victims in the preceding twelve month period of one or more of the following incidents; motor vehicle theft, theft or attempted theft with violence or threat of violence, other theft, sexual assault and assault. Other theft and assault were the most common offences against individuals. Almost two and a half times as many males as females were victims of assault.

Based on preliminary data, the proportion of incidents reported to the police varied markedly depending on the type of incident, ranging from 94.1 per cent for motor vehicle theft and 69.1 per cent for break and enter to 25.7 per cent for sexual assault and 33.6 per cent for assault.

Of those incidents of a property theft nature (break and enter, household property theft, motor vehicle theft and other theft) that were reported to the police, the two major reasons for doing so were either that a crime had been committed and they had a moral obligation to inform the police or that they hoped to get their property back. On the other hand, the main reasons given for victims telling the police of personal injury (theft or attempted theft with violence or threat of violence, sexual assault and assault) were to try to stop it happening again, because of fear of harm to themselves or someone else and because they wanted the offender caught and/or punished.

The most frequent reasons given by victims for failing to inform the police were that the matter was too trivial or unimportant (40.3 per cent), and that it was a private matter they would take care of themselves (11.7 per cent).

Further information is contained in the publication *Crime Victims Survey, Australia, 1983* (Cat. No. 4505.0).

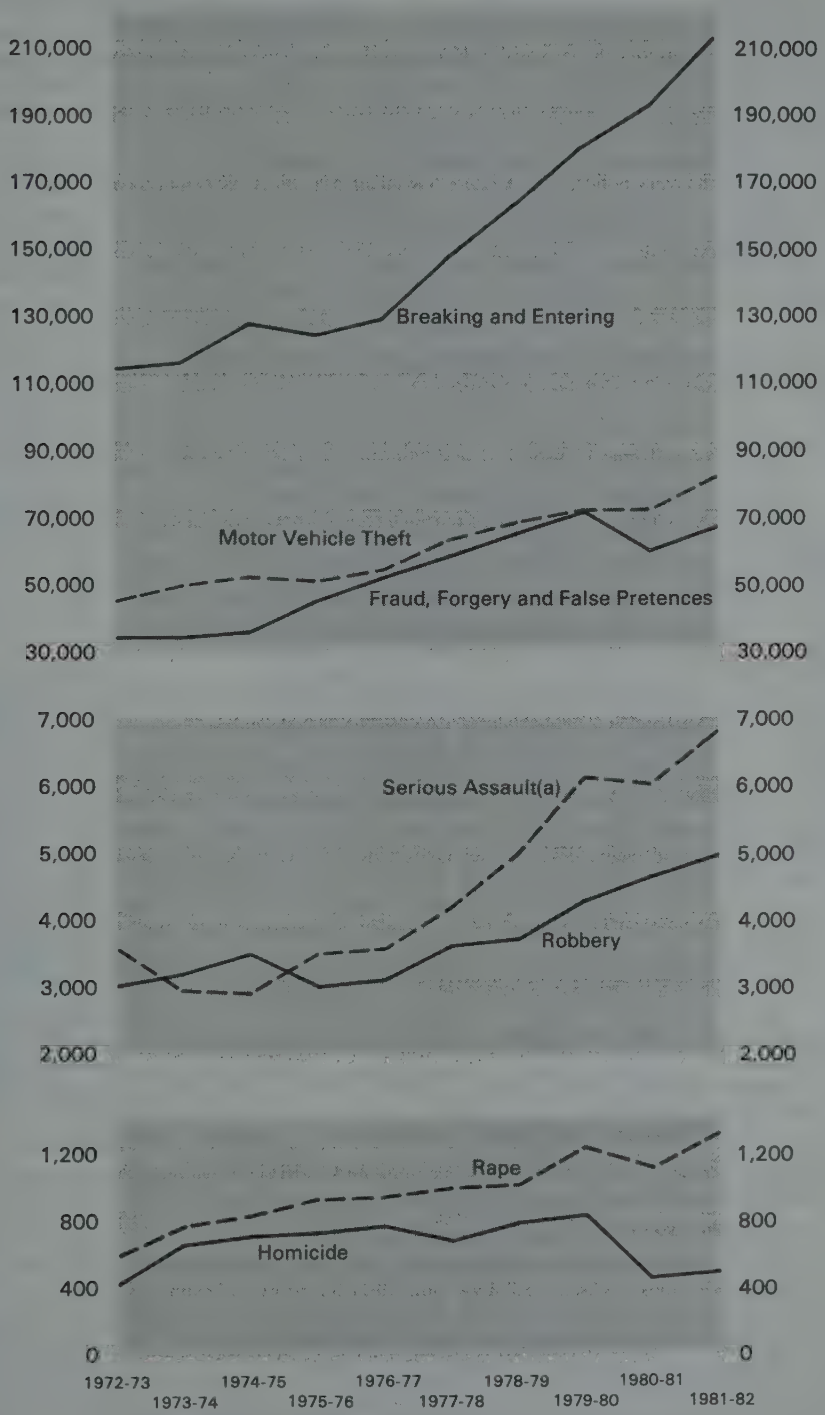
Crime Statistics

Selected Offences

Since 1964, the ABS has published a series of 'Selected Offences reported or becoming known to Police'. This series is provided by police, and is based as far as possible on definitions and procedural arrangements agreed to by police authorities for all States and Territories.

Graphs following show the number of offences reported or becoming known to police, including the Australian Federal Police, in Australia in each of the seven major categories included in the series.

SELECTED OFFENCES REPORTED OR BECOMING KNOWN TO POLICE, AUSTRALIA, 1972-73 TO 1981-82



(a) From 1980-81 defined as assaults causing grievous or actual bodily harm.

PLATE 38

Drug Offences

Australia is a signatory to the Single Convention of Narcotic Drugs which has as its main aim the limitation of narcotic drugs to legitimate medical and research purposes.

As its name implies, the Single Convention of Narcotic Drugs covers only the so-called narcotic drugs including cannabis and its derivatives. In recognition that there are other drugs of dependence, the member nations met during 1970 and 1971 and drew up a further Convention to impose controls on psycotropic substances such as hallucinogens, amphetamines, other central nervous system stimulants, barbiturates, tranquillisers and certain other sedatives.

For details of legislative provisions *see* Year Book No. 63, page 218.

The Australian Federal Police serve as the national agency for the systematic collection, collation, evaluation and dissemination of information concerning the illicit drug traffic in Australia. The following extracts are from the Police's annual report *Drug Abuse in Australia (A Statistical Survey).*

DRUG AND DRUG-RELATED OFFENCES: NUMBER OF CHARGES(a) INVOLVING SPECIFIC DRUG TYPES: AUSTRALIA 1979 TO 1981

Year	*Possess*	*Import*	*Use/ administer*	*Traffic*	*Steal*	*False pretences*	*Forged scripts*	*Other*	*Total*
Narcotics—									
1979	1,068	73	1,009	414	137	73	379	367	3,520
1980	877	36	783	352	85	114	136	228	2,611
1981	1,186	103	1,003	565	148	287	103	350	3,745
Cannabis—									
1979	10,688	102	3,472	862	23	2	—	2,352	17,501
1980	12,269	95	4,027	1,266	37	—	—	2,584	20,278
1981	15,776	123	5,065	1,623	17	2	—	3,980	26,506
Amphetamines—									
1979	94	1	57	12	12	20	37	12	245
1980	85	—	49	25	—	22	14	6	201
1981	298	2	208	90	—	6	3	17	624
Barbiturates hypnotics—									
1979	359	—	263	53	45	32	104	51	907
1980	224	—	197	59	11	30	65	44	630
1981	143	—	77	26	20	12	37	21	342
Tranquilisers—									
1979	79	—	40	29	34	12	36	18	248
1980	64	1	66	30	11	19	12	17	220
1981	102	—	73	19	20	7	24	18	263
Hallucinogens—									
1979	186	—	40	33	—	—	1	18	278
1980	183	3	32	58	—	—	2	12	290
1981	171	3	39	38	1	1	—	10	263
Other—									
1979	46	—	12	48	30	8	14	14	172
1980	50	—	23	51	24	74	41	22	285
1981	89	1	24	31	16	12	14	17	204
Total—									
1979	**12,520**	**176**	**4,893**	**1,451**	**281**	**147**	**571**	**2,832**	**22,871**
1980	**13,752**	**135**	**5,177**	**1,841**	**168**	**259**	**270**	**2,913**	**24,515**
1981	**17,765**	**232**	**6,489**	**2,392**	**228**	**327**	**181**	**4,333**	**31,947**

(a) Charges arising from offences involving a number of different drug types have been counted under each drug type involved.

Law enforcement in respect of drugs in Australia is handled mainly by the following bodies:

- State and Territory police forces who police State and Territory laws and Commonwealth laws in conjunction with Commonwealth authorities.
- The Australian Federal Police who police Commonwealth laws.
- The Bureau of Customs in the Department of Business and Consumer Affairs which has responsibility for the enforcement of laws controlling importing and exporting of drugs.

The National Standing Control Committee on Drugs of Dependence was established in 1969 by the Commonwealth Government to co-ordinate the activities of the various Commonwealth, State and Territories' bodies participating in the administration of drug laws and control. The role of the Committee is to consider further steps that can be taken by the national and State Governments together to combat all aspects of drug abuse in Australia, including addiction, trafficking, treatment and education.

AGE DISTRIBUTION OF PERSONS CHARGED (a) WITH DRUG AND/OR DRUG RELATED OFFENCES: AUSTRALIA 1979 to 1981

Year	*16 years and under*	*17*	*18–25*	*26–30*	*31–49*	*50 years and over*	*Total*
1979	311	534	7,743	1,783	825	37	11,233
1980	338	558	7,939	1,909	923	49	11,716
1981	520	778	10,052	2,636	1,333	49	15,368

(a) Persons counted only once, regardless of the number of occasions on which charged during the year.

Correctional Treatment of Offenders

The term 'corrections' (and its derivatives) as used here refers to the treatment of offenders within the justice system.

While there is a variety in the types of correctional activities employed in each State and Territory, such activities can be broadly categorised into two groups:

- non-continuing forms of treatment, where, if the offender meets the requirements set by court, then correctional agencies would not normally become actively involved. Examples of these forms of treatment are fines, bonds, recognisances without supervision.
- continuing forms of treatment, where the offender is subject to some form of control by a correctional agency, usually for a specified period. This control may take the form of:
  - (i) full time custody, as in the case of persons detained in prisons, or other institutions, or
  - (ii) non-custodial treatment involving conditions to be observed by the offender, e.g. probation and parole. In recent years there has been a trend towards the greater use by courts of non-custodial treatment of offenders. This has seen the development of a range of programs such as periodic/weekend detention, attendance centre programs, and community service, under which the offender is at liberty in the community, but is required to report for weekend detention, training, counselling, or to perform unpaid work in the community.

Separate provisions exist in each State and Territory for the treatment of juvenile offenders, and courts and correctional agencies have a wide choice in the types of correctional treatments available to them. Both custodial and non-custodial correctional activities are employed, but greater flexibility allows treatment to be more closely aligned to individual requirements.

Each State and the Northern Territory operate prisons and other correctional services. Convicted adult prisoners from the A.C.T. serve their sentences in N.S.W. prisons, but local provision is made for the short-term custody of remand prisoners, and for probation and parole services. The Federal Government does not operate any prisons or other correctional services, and Federal offenders (i.e. persons convicted of offences under Federal laws) fall within the jurisdiction of State agencies for correctional purposes.

Information relating to correctional services in each State is available from the annual reports of the respective authorities and certain data are also published monthly by the Australian Institute of Criminology on adults and juveniles in detention, and adult probationers and parolees.

National Prison Census

The Australian Institute of Criminology in conjunction with State prison administrators conducted the first National Prison Census at 30 June 1982.

NUMBER OF PRISONERS BY JURISDICTION, AGE(*a*) AND SEX, 30 JUNE 1983

Age-group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Under 16 Years	..	..	..	..	..	1	..	..	1
16 Years	1	..	..	..	4	2	7	..	14
17 Years	7	21	38	2	11	9	10	..	97
18 Years	129	61	65	29	60	9	23	..	376
19 Years	221	88	93	50	90	15	16	2	575
20-24 Years	1,116	558	466	220	453	69	68	8	2,958
25-29 Years	905	472	350	164	351	41	62	3	2,347
30-34 Years	566	321	238	103	220	24	30	1	1,503
35-39 Years	348	198	188	86	145	12	20	1	998
40-44 Years	204	136	121	51	77	9	15	..	613
45-49 Years	106	57	55	27	40	6	8	..	299
50-54 Years	72	30	40	14	31	3	5	..	195
55-59 Years	37	35	32	13	18	4	1	..	140
60-64 Years	8	14	15	3	2	3	2	..	47
65 Years and over	4	4	8	2	2	1	..	..	21
Unknown	9	1	..	..	1	1	..	..	12
Total Persons	3,733	1,996	1,709	764	1,503	209	267	15	10,196
Total Males	3,551	1,923	1,667	744	1,437	203	257	15	9,797
Total Females	182	73	42	20	66	6	10	..	399

(*a*) The tabulation shows the age-structure of the prison populations as at 30 June 1983. The age at which persons normally become liable to imprisonment in an adult prison varies from State to State, being seventeen years in Victoria, Queensland, Tasmania and Northern Territory, and eighteen years in the other jurisdictions, although younger persons who have been convicted of a particularly serious offence may also be sent to adult prisons. Persons in juvenile institutions were specifically excluded from this census.

(*Source:* Australian Institute of Criminology *Australian Prisoners 1983* by John Walker and David Biles)

Criminological Research

The Australian Institute of Criminology

The Australian Institute of Criminology, located in Canberra (telephone (062) 82 2111), was established as a statutory authority under the *Criminology Research Act* 1971. The Institute is administered by a Director and a Board of Management comprising three members appointed by the Federal Attorney-General, and three members representing the States, who are appointed by the Criminology Research Council.

Among the functions of the Institute as defined in the Criminology Research Act are:

- to conduct criminological research (i.e. research in connection with the causes, prevention and correction of criminal behaviour and related matters), and communicate the results of such research to the Commonwealth and States;
- to advise on the needs for, and programs of, criminological research, and give advice and assistance in relation to any research funded through the Criminology Research Council;
- to conduct seminars and courses of training and instruction for persons engaged in criminological research or work related to the prevention or correction of criminal behaviour;
- to provide advice in relation to the compilation of statistics in relation to crime; and
- publish material resulting from, or relating to its activities.

Since its inception the Institute has undertaken directly, or through the Criminology Research Council actively assisted and advised on, an extensive range of criminological research projects, and has conducted, or been represented at, numerous national and international conferences dealing with crime related matters. In addition, the Institute maintains a comprehensive library of criminological material which is available to researchers and criminal justice practitioners.

Major publications of the Institute during 1983–84 included *Australian Prisoners 1983* by John Walker and David Biles, *Asian and Pacific Experiences in Corrections, National Symposium on Arson*, edited by C. R. Bevan and *Aborigines and Criminal Justice*, edited by Bruce Swanton.

Each year the Institute conducts from 15 to 20 national seminars. Topics covered by seminars during 1983–84 included: one for librarians in the Criminal Justice System, Administration of Criminal Justice in the A.C.T., Community Service Orders in Australia and New Zealand, Prosecutorial Discretion and Women in the Prison System.

The Criminology Research Council

The Criminology Research Council, comprised of representatives from the Commonwealth and each State, is an independent body corporate also established under the *Criminology Research Act*

1971. The Council is responsible for the control and administration of the Criminology Research Fund, which is funded fifty percent by the Federal Government, and fifty percent by State Governments on a pro-rata population basis. Subject to the Council's assessment of a project, persons seeking to conduct criminological or related research may be provided with a grant from the Fund.

Since its establishment the Council has provided grants for over 100 separate research projects covering nearly all aspects of crime and criminal justice in Australia. Council-funded research is generally located in specific regions and may involve primary data gathering. By contrast, the research undertaken by the Institute itself is generally national and comparative in nature and makes use of existing data sources.

Bankruptcy and Copyright

Bankruptcy

For a description of the provisions of the *Bankruptcy Act 1966*, *see* Year Book No. 55, pages 586–7. The Act was amended in 1970 to remove any obstacle the Act might present to the operation of compositions or schemes of arrangements entered into under State or Territory legislation providing assistance to farmers in respect of their debts. Details for each Australian State have been published in the Annual Report by the Minister for Consumer and Business Affairs on the operation of the Act.

Copyright

Copyright is regulated by the Commonwealth *Copyright Act 1968* which came into force on 1 May 1969. The Act does not contain any provisions requiring or enabling the completion of formalities (such as publication, registration or the payment of fees) in order to obtain copyright protection in Australia. Protection is granted automatically from the moment of making a work or other subject matter.

The Act has been amended from time to time. The *Copyright Amendment Act 1980*, in particular, contains substantial changes in a number of areas including fair dealings, copying by libraries and archives, and copying for educational purposes and for handicapped readers.

Copyright is administered by the Attorney-General's Department.

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CHAPTER 12

EDUCATION AND YOUTH AFFAIRS

State and Commonwealth Government responsibilities in education

The governments of the six Australian States and the Northern Territory have the major responsibility for education, including the administration and substantial funding of primary, secondary and technical and further education. The Commonwealth Government is directly responsible for education services in the Australian Capital Territory, administered through an education authority, and for services to Norfolk Island, Christmas Island and the Cocos (Keeling) Islands. The Commonwealth Government provides supplementary finance to the States and is responsible for the total funding of universities and colleges of advanced education. Apart from its financial role, the Commonwealth is involved in initiating and co-ordinating policy and in maintaining a national perspective.

The State Governments administer their own systems of primary, secondary and technical and further education through government departments responsible to State Ministers. In three States, a single Education Department is responsible for these three levels of education. In New South Wales and South Australia, there is a separate department responsible for technical and further education. In Victoria, the Education Department's former responsibility for technical and further education has passed to a Post-Secondary Technical and Further Education Board. In New South Wales the Education Commission advises the Minister on primary, secondary and further education.

Detailed information on the education systems of the States may be found in the respective State year books. Chapter 27 of this Year Book provides details of the situation in the Territories.

Administrative structure of education at the national level

As mentioned above, the Commonwealth Government has direct responsibility for education only in the Australian Capital Territory and the external Territories. The Commonwealth Government, however, has special responsibilities for the Aboriginal people and for migrants, as well as the power to provide assistance for students. Moreover, the Commonwealth Government is responsible for international relations in education. From 11 March 1983, the former Commonwealth Department of Education became the Department of Education and Youth Affairs. The Department's activities now include the administration of schemes of student assistance, international education, some aspects of migrant education, language policy and Aboriginal education and youth policy. The Department also liaises with the media and community groups and produces a range of publications relating to education in Australia. Selected publications are listed at the end of this chapter.

The Australian Constitution empowers the Commonwealth Government to make grants to the States and to place conditions upon such grants. This power has been used to provide financial assistance to the States specifically for educational purposes. There are two national education commissions which advise the Commonwealth Government on the needs of educational institutions throughout Australia for the purposes of financial assistance: the Commonwealth Schools Commission and the Commonwealth Tertiary Education Commission, which comprises a Commission concerned with co-ordination and inter-sectoral matters, and three Councils on universities, advanced education and technical and further education.

Generally, the Commissions are required to consult with State authorities (and, in the case of the Commonwealth Schools Commission, with the authorities conducting non-government schools) and such other persons, bodies and authorities as they think necessary before making recommendations to the Commonwealth Government on the amount of financial assistance required, both in general and for specific purposes, to meet the needs of each sector.

The needs for financial assistance for pre-school and child care facilities are considered at the national level by the Office of Child Care within the Commonwealth Department of Social Security.

The *National Aboriginal Education Committee* (NAEC) advises the Commonwealth Department of Education and Youth Affairs and other government departments and bodies on the educational needs of Aboriginals from pre-school to tertiary level. The NAEC's consultative process has been developed to a stage whereby the views of Aboriginal people regarding their needs in education can be clearly expressed at both State and national levels. The NAEC maintains close links with State Aboriginal Education Consultative Groups.

Commonwealth Government education authorities also function as co-ordinating agencies for joint activity by the States and Territories in a number of fields. For example, the *Australian Council on Awards in Advanced Education* seeks, in consultation with State co-ordinating bodies, to establish consistency in awards in advanced education by establishing, maintaining and publishing a register of such awards.

A number of bodies at the national level have an important co-ordinating, planning or funding role.

- The *Australian Education Council,* comprising the Commonwealth and State Ministers for Education, normally meets three times in each two years as a consultative body to consider matters of mutual interest, such as the material and personnel needs of schools and co-operation in educational developments generally. It is assisted by a Standing Committee consisting of senior officials including the Directors-General of Education in each State and the Secretary of the Commonwealth Department of Education and Youth Affairs.
- The *Conference of the Directors-General of Education* normally meets twice each year. Matters discussed and decisions reached at the Conference have a direct influence in each State and Territory on such matters as pre-service and in-service education of teachers, school staffing, curricula, special education, building programs, administrative procedures and the extent of uniformity and diversity between education systems. Under the auspices of the Directors-General Conference, regular meetings of senior specialist personnel are held.
- The *Australian Council for Educational Research* (ACER) is an independent national research organisation. The Council is funded by annual grants from each of the State Governments and the Commonwealth Government, as well as from its own activities. The Council is involved in its own and contract research in co-operation with education systems and plays a central role in the development, production and distribution of tests and other measuring instruments, on research into teaching and learning and into the broad foundations of education. The ACER acts as the Australian national centre for the program of international surveys of student achievement conducted by the International Association for Evaluation of Education Achievement (IEA).

There are also a number of non-government organisations which have a co-ordinating role in education at the national level. These include the *National Catholic Education Commission,* the *National Council for Independent Schools,* the *Australian Vice-Chancellors' Committee,* the *Australian Committee of Directors and Principals of Colleges of Advanced Education,* the *Conference of Directors of TAFE* and the *Australian High School Principals' Association.* Teachers at various levels have national organisations, as do some community and parental groups. The Australian Union of Students was, until 1984, a national organisation for tertiary students. A new national association of tertiary students was in the process of being formed in late 1984. (For further details *see* the *Australian Education Directory,* published by the Commonwealth Department of Education and Youth Affairs).

STUDENT ASSISTANCE SCHEMES FUNDED BY THE DEPARTMENT OF EDUCATION AND YOUTH AFFAIRS

Scheme	*Number of students 1983*	*Expenditure ($'000) 1983–1984*
Postgraduate Awards(*a*)	2,180	16,476
Tertiary Education Assistance(*b*)	96,527	232,549
Secondary Allowances(*b*)	52,789	49,849
Adult Secondary Education Assistance(*b*)	2,659	7,136
Aboriginal Secondary Grants(*b*)	21,839	25,364
Aboriginal Study Grants(*b*)	12,105	19,561
Aboriginal Study Grants—Overseas(*b*)	7	110
Assistance for Isolated Children(*b*)	21,611	21,965
Non-State Tertiary Institutions	n.a.	297

(*a*) For this scheme, the 'number of students' represents students receiving benefits at 30 June each year. (*b*) For this scheme, the 'number of students' represents students receiving benefits at some time during the financial year 1983-84.

New developments in education

In 1984, the Commonwealth Government announced funding guidelines to the Commonwealth Schools Commission for 1985-88 which established two new bases for recurrent funding of both government and non-government schools. Funding will be on a per student basis for both government and non-government schools linked to a community standard recommended by the Commonwealth Schools Commission. Non-government schools are placed into twelve funding categories on the basis of relative needs.

In 1984, the Commonwealth Government introduced a new program with the twin objectives of increasing participation beyond the compulsory years of secondary schooling and of introducing greater equity in the overall provision for young people. The *Participation and Equity Program* is directed towards bringing about wide-ranging changes in schools and TAFE colleges so as to enable them to offer all students, especially those from a disadvantaged background, a rewarding, useful education through to the end of secondary schooling or its equivalent in TAFE. The program is directed particularly to secondary schools with low retention rates and seeks to foster more equal outcomes of schooling.

As an extension of concern about inequity in schooling in 1984 the government announced a new *Basic Learning in Primary Schools Program*, to ensure that students had a proper foundation for successful secondary studies.

Another significant development in 1984 was the passage of legislation to reactivate the national Curriculum Development Centre (CDC) within the framework of the Commonwealth Schools Commission. The main purpose of this new arrangement is to align the CDC activities closely with the Commission's program priorities. The CDC's functions are to concentrate on co-ordination and dissemination and on sponsoring the development of materials through contract arrangements with other agencies.

Through the Commonwealth Schools Commission *Participation and Equity Program* and projects of national significance, the Government will be supporting the work of State and Territory Aboriginal education consultative groups, and stimulating projects related to Aboriginal education.

The Commonwealth Schools Commission will assume responsibilities from the Department of Social Security's Office of Child Care for special education for handcapped children below school age.

The Government established a *Quality in Education Review Committee*, chaired by Professor Peter Karmel, to study the outcomes of Australian schooling with regard to broad, national considerations.

Pre-school education

All States and Territories except one have a policy of making pre-school education universal for children in the years prior to school entry. A majority of the States and Territories have made considerable progress towards this goal. Most pre-schools are conducted on a sessional basis (i.e., sessions of two to three hours for two to five days per week). Pre-school programs generally favour the free play approach with emphasis on children's social and emotional development through creative activities. Parents often contribute by assisting at some sessions or by the purchase of play materials and educational resources. Attendance fees are not usually charged in those States where pre-schools are government-run, but in others, fees may be payable to private or voluntary organisations.

Primary and secondary education

Compulsory education

School attendance is compulsory throughout Australia between the ages of 6 and 15 years (16 years in Tasmania). Each State or Territory has its own specific requirements. The majority of children commence primary school at about 5 years of age, except in Western Australia, where they start at 6 years. Primary schooling generally begins with a preparatory or kindergarten year, followed by 12 grades to complete a full secondary course of study. The final two years of schooling fall outside the compulsory stage of education, but at least half the students in Year 10 remain for a further year's study and over a third complete Year 12.

Non-Government Schools

All children between the prescribed ages must attend either a government school or some other recognised educational institution. While the majority of Australian children attend government schools, about one in four attend non-government schools at some stage of their school life. In the last few years enrolments in the non-government sector have increased to 734,784 in 1983 i.e. more than 24 per cent of all school enrolments. Non-government schools operate under conditions determined by government authorities, usually registration boards, in each State and Territory. These conditions require that minimum education standards are met and that the schools have satisfactory premises. The majority of non-government schools are Catholic and there is a Catholic Education Commission in each State and at the national level. Most other non-government schools are under the auspices of, or run by, other religious denominations. The capacity of the Commonwealth Government to assist with the cost of educating children in denominational schools throughout Australia was upheld by the High Court in 1981.

Funding of schools

Primary and secondary education is free in government schools in all States and Territories. Fees for the hire of textbooks and other school equipment, however, may be charged, particularly in secondary schools. Most State Governments provide financial assistance to parents under specified conditions for educational expenses. Assistance includes various types of scholarships, bursaries, transport and boarding allowances, many of which are intended to assist low-income families. The Commonwealth Government also provides a number of schemes of assistance to facilitate access to education. The *Secondary Allowances Scheme* (SAS), which assists families on lower incomes to maintain their children in Years 11 and 12, has been considerably expanded recently; the allowance is to rise by a further 15 per cent in 1985 (following a 20 per cent rise in 1984) and the number of students assisted is projected to increase to 64,000 (from 60,000 in 1984). This scheme and others are listed in the statistical table dealing with Student Assistance Schemes (*see* page 227). In addition some non-government schools offer scholarships and bursaries to assist students.

State Governments provide the bulk of funds for government schools out of general revenue and make per capita grants to non-government schools. About one-fifth of the total public funding of schools is now provided directly by the Commonwealth through the Commonwealth Schools Commission, which, in consultation with the States, advises the Commonwealth Government on the resource needs of both government and non-government schools. For further details, *see* Expenditure on education, page 241.

School organisation and operation

Primary schooling provides a general elementary program lasting for 7 or 8 years, until Years 6 or 7. Students enter secondary schools at Year 7 in some State systems and at Year 8 in others. Secondary education is generally comprehensive and co-educational. Most students attend schools reasonably near to their homes. Usually primary and secondary schools are separate institutions, but in some country areas there are area or central schools which provide both forms of schooling. Non-government schools follow a similar pattern, but a significant though declining proportion are single-sex institutions. In Tasmania and the Australian Capital Territory, attendance for the final two years of government schooling is at separate secondary colleges.

Generally, schools in Australia have a considerable degree of autonomy. Most State Departments have established regional administrations which are responsible for matters such as planning school buildings and deploying staff while a central curriculum unit provides general guidelines on course planning. In general, individual schools determine teaching and learning approaches within the guidelines and offer options within resources available and the attitudes and interests of students. Some systems encourage school-based curriculum development and, in the case of the Australian Capital Territory, school-based assessment in place of external examinations. While schools usually have a parents' association, there has been encouragement of greater community participation in general decision-making at school level in some systems through parent representation on school councils and boards.

Specialist services and programs provided in schools include educational or vocational counselling by a permanent or visiting teacher, English as a Second Language program by specialist teachers (especially in schools with significant numbers of children from non-English speaking backgrounds), special programs designed to assist Aboriginal school children (including the widespread use of Aboriginal teacher aides and bilingual education programs in communities where the children's first language is an Aboriginal language), a variety of programs for gifted and talented children and remedial assistance for children with learning difficulties.

Primary education

In the lower primary years the main emphasis is on the development of basic language and literacy skills, simple arithmetic, moral and social education, health training and some creative activities.

In the upper primary years there is development of the skills learned in the earlier years. English, mathematics, social studies, science, music, art and craft, physical education and health are studied. There are also optional subjects such as religious instruction and, in some schools, foreign and community languages and instrumental music.

Students in Australian primary schools usually have only one teacher for all subjects, and are promoted each year on the basis of completing the previous year, rather than on achievement. In schools where open plan learning styles have been adopted, the method of team teaching (more than one teacher to a class) and multi-age grouping of students is often practised.

Secondary education

In some systems the first one or two years of secondary school consist of a general program which is followed by all students, although there may be some electives. In later years a basic core of subjects is retained with students being able to select additional optional subjects. In other systems students select options from the beginning of secondary school.

The core subjects in all systems are English, mathematics, science and, usually, a humanities or social science subject. Optional subjects may include, for example, a foreign language, a further humanities or social science subject, commerce, art, crafts, music, home economics, a manual arts subject, agriculture, physical education or health education. Some schools offer optional courses in subjects such as consumer education, conversational foreign languages, shorthand, typewriting, road safety, drama and leisure-time activities.

In senior secondary years a wider range of options is available in the larger schools and there is an increasing trend towards encouraging individual schools to develop courses suited to the needs and interests of their students, subject to accreditation and moderation procedures.

Victoria is the only State which retains a system of secondary technical education. These schools offer a wide range of elective technical subjects. In the Northern Territory two Aboriginal residential colleges assist Aboriginals to participate in secondary education.

Students in Australian secondary schools generally have different teachers for each separate subject area, though, like primary schools, variations may occur where open planned or more flexible methods have been adopted. Promotion is, again, generally chronological, but students may be grouped according to ability after an initial period in unstreamed classes.

Examinations and assessment at each level are carried out by individual schools except Year 12 in the systems which have retained external examinations at Year 12 level. Students attaining the minimum school leaving age may leave school and seek employment, or enrol in a vocationally oriented course in a technical and further education (TAFE) institution or a private business college. For many TAFE courses, completion of Year 10 of secondary school is a minimum entry requirement. For those continuing to the end of secondary school (Year 12), opportunities for further study are available in TAFE institutions, universities, colleges of advanced education and other post-school institutions. The latter include non-government teachers colleges and a few single purpose institutions such as the Australian Film and Television School, the Australian Maritime College and the National Institute of Dramatic Art.

Students' eligibility for entry to universities and colleges of advanced education is assessed during, or at the end of, the final two years of secondary schooling. Five States and the Northern Territory use different combinations of school assessment and public examinations. In Queensland and the Australian Capital Territory eligibility to enter higher education is determined from moderated and standardised school assessments. Several education systems are currently reviewing their senior secondary school assessment procedures.

Other schooling arrangements

Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition. Special schools are available in larger centres for socially, physically and mentally handicapped children in cases where they are not catered for in special or regular classes in ordinary schools.

In addition to correspondence tuition there are other provisions for children in isolated areas. Schools of the Air operate in New South Wales, South Australia, Queensland, Western Australia and the Northern Territory. Schooling for the children of Aboriginal groups in remote areas of the Northern Territory is conducted by Aboriginal teaching assistants supported by visiting teachers from established schools.

Special education is provided by State Governments and non-government authorities in specialist schools, in special classes or units in regular schools or by withdrawal from regular classes for periods of intensive assistance by special staff. In all States and particularly in New South Wales, Queensland and Victoria, parents have formed voluntary organisations to establish additional schools catering for their childrens' special needs. The Commonwealth Government, through the Commonwealth Schools Commission, provides funds to State authorities to assist in the upgrading of special education facilities.

Boarding facilities are available at some non-government schools mainly in the larger towns and cities. A small number of government schools, in particular those catering for special groups such as Aboriginals, have residential hostels close by.

SCHOOLS, STUDENTS AND TEACHERS BY CATEGORY OF SCHOOL(*a*), 1983

		Non-government schools			
	Government schools	*Roman Catholic*	*Anglican*	*Other*	*Total*
Number of schools	7,546	1,702	100	560	2,362
Number of students—					
Males	1,173,036	279,339	34,824	54,158	368,321
Females	1,107,986	279,203	29,080	58,180	366,463
Persons	**2,281,022**	**558,542**	**63,904**	**112,338**	**734,784**
FTE of teachers(*b*)—					
Males	64,065	9,784	2,209	3,384	15,378
Females	81,843	19,665	2,235	4,311	26,211
Persons	**145,908**	**29,449**	**4,444**	**7,696**	**41,589**

(*a*) The data series for the government and non-government sectors vary in scope and coverage and care should be taken in drawing comparisons between the two sectors. (*b*) Full-time teaching staff plus full-time equivalents of part-time teaching staff.

STUDENTS BY CATEGORY OF SCHOOL AND SEX, 1978 to 1983

	1978	*1979*	*1980*	*1981*	*1982(a)*	*1983(a)*
GOVERNMENT SCHOOLS						
Males	1,212,500	1,201,127	1,189,633	1,179,428	1,171,506	1,173,036
Females	1,141,922	1,135,591	1,128,444	1,119,975	1,111,459	1,107,986
Persons	**2,354,422**	**2,336,718**	**2,318,077**	**2,299,403**	**2,282,965**	**2,281,022**
NON-GOVERNMENT SCHOOLS						
Males	317,132	324,223	332,930	344,017	355,964	368,321
Females	321,074	325,990	333,555	343,979	355,718	366,463
Persons	**638,206**	**650,213**	**666,485**	**687,996**	**711,682**	**734,784**
TOTAL SCHOOLS						
Males	1,529,632	1,525,350	1,522,563	1,523,445	(*a*)	(*a*)
Females	1,462,996	1,461,581	1,461,999	1,463,954	(*a*)	(*a*)
Persons	**2,992,628**	**2,986,931**	**2,984,562**	**2,987,399**	(*a*)	(*a*)

(*a*) The government and non-government school sectors have not been totalled for 1982 and 1983 as the government statistics for 1982 and 1983 vary in scope and coverage. They are not comparable with either the non-government sector for 1982 and 1983 or the government and the non-government sectors for the years 1978 to 1981. For further details *see National Schools Statistics Collection, Government Schools, Australia 1983* (4215.0).

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS, BY AGE AND SEX, AUSTRALIA, 1983

(July school census)

	Government schools			*Non-government schools*		
Age last birthday (years)	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Under 6	76,402	73,214	149,616	22,486	22,651	45,137
6	93,161	87,376	180,537	25,569	25,285	50,854
7	95,531	90,351	185,882	26,347	25,701	52,048
8	98,491	92,876	191,367	27,674	26,842	54,516
9	102,070	95,781	197,851	28,956	27,944	56,900
10	105,852	100,439	206,291	29,622	28,958	58,580
11	111,643	106,331	217,974	32,136	31,287	63,423
12	108,962	102,225	211,187	35,994	36,382	72,376
13	102,257	95,663	197,920	34,927	35,058	69,985
14	100,628	93,944	194,572	33,474	34,276	67,750
15	86,022	79,989	166,011	29,921	30,809	60,730
16	56,662	53,931	110,593	23,216	23,830	47,046
17	26,572	28,203	54,775	14,706	14,992	29,698
18	6,199	5,420	11,619	2,644	1,985	4,629
19 and over (*a*)	2,584	2,243	4,827	649	463	1,112
Total all ages	**1,173,036**	**1,107,986**	**2,281,022**	**368,321**	**366,463**	**734,784**

(*a*) Students whose ages were unspecified have been included in the *19 and over* age group.
Note: The data series for the government and non-government sectors vary in scope and coverage and care should be taken in drawing comparisons between the two sectors.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS BY YEAR OF EDUCATION AND SEX, AUSTRALIA, 1983

(July school census)

	Government schools			*Non-government schools*		
Year of education	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Primary—						
Pre-year 1 (*a*)	61,375	57,152	118,527	20,125	19,816	39,941
Year 1	98,379	90,792	189,171	26,437	25,584	52,021
Year 2	96,979	90,910	187,889	26,482	25,773	52,255
Year 3	98,111	92,544	190,655	27,738	26,724	54,462
Year 4	101,923	95,889	197,812	28,567	27,712	56,279
Year 5	104,523	99,040	203,563	29,987	29,086	59,073
Year 6	109,609	105,084	214,693	31,624	30,667	62,291
Year 7 (*b*)	41,087	39,155	80,242	9,776	9,427	19,203
Ungraded special	6,163	3,808	9,971	r 1,227	r 949	r 2,176
Ungraded non-special	4,007	2,444	6,451	r 274	r 272	r 546
Total primary	722,156	676,818	1,398,974	202,237	196,010	398,247
Secondary—						
Year 7 (*c*)	67,154	63,429	130,583	24,353	25,304	49,657
Year 8	101,741	95,167	196,908	35,288	35,427	70,715
Year 9	99,451	94,013	193,464	33,526	34,237	67,763
Year 10	89,161	84,024	173,185	31,255	31,938	63,193
Year 11	53,608	54,284	107,892	23,610	24,660	48,270
Year 12	28,843	33,532	62,375	17,854	18,459	36,313
Ungraded special	1,334	707	2,041	r 137	r 94	r 231
Ungraded non-special	2,325	1,461	3,786	r 61	r 334	r 395
Total secondary	443,617	426,617	870,234	166,084	170,453	336,537
Ungraded special not identified as primary or secondary	7,263	4,551	11,814	—	—	—
Total	**1,173,036**	**1,107,986**	**2,281,022**	**368,321**	**366,463**	**734,784**

(*a*) Pre-year 1 comprises ***Kindergarten*** in N.S.W. and A.C.T., ***Preparatory*** in Vic. and Tas., ***Reception*** in S.A. and ***Transition*** in N.T. (*b*) *Year 7* is primary education in Qld, S.A., W.A. and N.T. (*c*) *Year 7* is secondary education in N.S.W., Vic., Tas. and the A.C.T.

Note: The data series for the government and non-government sectors vary in scope and coverage and care should be taken in drawing comparisons between the two sectors.

Tertiary Education

Since 1974 tertiary education has been free for award courses in universities, colleges of advanced education and technical and further education institutions (Streams 1–5). At the national level, the Commonwealth Government, through its Department of Education and Youth Affairs, provides a number of schemes of assistance for Australian students to facilitate access to education. A brief description of these schemes was given in the 1980 Year Book and a list of these schemes is included in the statistical table 'Student Assistance Schemes Funded by the Department of Education and Youth Affairs' (see page 227).

Technical and further education (TAFE)

The major part of technical and further education in Australia is provided in government administered institutions variously known as colleges, schools, or centres of technical and further education. There is also some TAFE provision in some colleges of advanced education, agricultural colleges and adult education authorities. These institutions are spread widely throughout Australia in both metropolitan and country areas. They vary greatly in size and in the scope of their educational provisions, though the largest tend to be located in metropolitan regions. TAFE institutions operate from early February to mid-December, in either three terms or two semesters depending on the institution.

Each of the States provides the bulk of the finance for its own institutions. The Commonwealth Government provides supplementary funds to the States on the basis of recommendations from the Commonwealth Tertiary Education Commission.

Government TAFE institutions offer an extremely wide range of vocational and non-vocational courses. Courses may be designed to supplement previous training, to provide specialised instruction in particular aspects of job skills, pre-vocational training prior to employment, preparatory or bridging instruction to permit entry to a chosen vocational course or adult education for personal interest, leisure or general enrichment purposes. Courses may be classified into the following six streams: professional, para-professional, trades, other skilled, preparatory and adult or further education. Courses in the first two streams lead to the award of a diploma or associate diploma, in the third and fourth streams to a certificate, while the less formal shorter courses in the fifth and sixth streams do not lead to any qualification. The majority of TAFE courses are part-time, concurrent with employment, but there is also provision for full-time and external study.

There are additionally some non-government bodies which offer technical and further education of a non-apprenticeship nature. Business colleges offer courses in secretarial studies, while agencies such as the Workers Educational Association and a range of voluntary groups help meet adult education needs in the community.

The Commonwealth Tertiary Education Commission conducts an annual TAFE statistical collection. The 1981 Collection incorporated a new collection of student statistics for TAFE to replace the former collection which had operated since 1974. The statistics for 1981 and subsequent years are not compatible with those prior to 1981 as a key feature of the new collection is its emphasis on the individual *student* as the unit of reporting rather than on enrolment.

TECHNICAL AND FURTHER EDUCATION: STUDENTS WITHIN EACH STREAM OF STUDY, 1982

(*Source: Commonwealth Tertiary Education Commission*)

									Australia	
Stream of study	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*1982*	*1981*
					—Number—					
1. Professional	1,079	1,326	92	232	127	24	32	59	2,971	3,210
2. Paraprofessional	70,691	35,966	13,505	32,099	38,380	4,283	973	4,076	199,973	191,362
3. Trade—										
Basic trade	51,513	35,153	18,869	9,555	12,295	3,899	1,125	1,559	133,968	131,750
Post-trade	12,638	10,451	1,606	—	3,701	1,182	291	688	30,557	28,564
4. Other skilled	100,354	42,289	20,671	24,972	11,894	5,367	3,156	8,126	216,829	212,888
5. Preparatory	54,204	56,297	9,425	38,033	4,979	3,176	3,088	6,388	175,590	151,466
Total streams 1-5(*a*)	**278,442**	**175,082**	**64,168**	**100,221**	**65,613**	**17,204**	**8,463**	**20,098**	**729,291**	**692,014**
6. Adult education	46,389	97,910	44,780	39,676	38,498	14,912	7,261	8,335	297,761	322,945
					—Percentage (*b*)—					
1. Professional	0.4	0.8	0.1	0.2	0.2	0.1	0.4	0.3	0.4	0.5
2. Paraprofessional	25.4	20.5	21.0	32.0	58.5	24.9	11.5	20.3	27.4	27.7
3. Trade—										
Basic trade	18.5	20.1	29.4	9.5	18.7	22.7	13.3	7.8	18.4	19.0
Post-trade	4.5	6.0	2.5	—	5.6	6.9	3.4	3.4	4.2	4.1
4. Other skilled	36.0	24.2	32.2	24.9	18.1	31.2	37.3	40.4	29.7	30.8
5. Preparatory	19.5	32.2	14.7	37.9	7.6	18.5	36.5	31.8	24.1	21.9
Total streams 1-5 (*a*)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
6. Adult education	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

(*a*) The sum of the stream of study components does not add to the total as students enrolled in two or more streams have only been counted once in the total. (*b*) Students in each of the streams of study 1 to 5 as a percentage of the total number of students in Streams 1 to 5.

Note: The collection methodology precludes the net number of students in Streams 1 to 5 being added to the net number of students in Stream 6. The resultant figure would contain multiple counting to the extent that students undertaking programs in Streams 1 to 5 may also be enrolled in Stream 6 programs during the reference year.

TECHNICAL AND FURTHER EDUCATION: STUDENTS (STREAMS 1 TO 5) BY MODE OF ATTENDANCE, SEX AND AGE GROUP: AUSTRALIA, 1982

(*Source: Commonwealth Tertiary Education Commission*)

	Mode of attendance								
	Internal		*External*		*Multi-modal*		*Total*		
Age group (years)	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Persons*
16 and under	41,731	32,224	732	1,043	351	219	42,814	33,486	76,300
17	39,345	18,412	635	963	412	306	40,392	19,681	60,073
18	45,168	19,111	873	1,211	508	430	46,549	20,752	67,301
19	37,313	15,080	938	1,110	543	325	38,794	16,515	55,309
20-24	79,984	44,636	5,787	4,160	1,731	988	87,502	49,784	137,286
25-29	41,733	30,261	5,847	3,108	1,260	614	48,840	33,983	82,823
30-39	49,881	46,954	7,426	4,041	1,531	844	58,838	51,839	110,677
40-49	18,860	23,860	2,575	1,496	477	335	21,912	25,691	47,603
50-64	9,576	16,334	1,090	742	145	120	10,811	17,196	28,007
65 and over	5,062	7,984	194	158	14	14	5,270	8,156	13,426
Not stated	24,240	24,393	996	696	88	73	25,324	25,162	50,486
Total	**392,893**	**279,249**	**27,093**	**18,728**	**7,060**	**4,268**	**427,046**	**302,245**	**729,291**

Note: A relatively small number of students, whose sex was not reported, have been randomly allocated to a sex category.

TECHNICAL AND FURTHER EDUCATION: DUTY HOURS OF TEACHING STAFF BY NATURE OF DUTIES, 1982

('000 Hours)

(*Source: Commonwealth Tertiary Education Commission*)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Teaching hours—									
Day	2,971.0	2,409.8	1,081.4	958.3	888.9	289.0	134.9	206.3	8,939.6
Evening	1,317.6	828.2	342.7	131.7	368.9	102.4	26.0	101.9	3,219.4
Total	*4,288.6*	*3,238.0*	*1,424.1*	*1,089.9*	*1,257.8*	*391.4*	*160.9*	*308.2*	*12,159.0*
Non-teaching hours	3,488.8	2,484.3	1,342.9	1,129.9	579.8	365.4	224.5	227.1	9,842.7
Total Duty Hours	**7,777.4**	**5,722.3**	**2,767.0**	**2,219.9**	**1,837.7**	**756.8**	**385.5**	**535.3**	**22,001.7**

TECHNICAL AND FURTHER EDUCATION: FULL-TIME EQUIVALENTS OF NON-TEACHING STAFF (a) BY TYPE OF APPOINTMENT AND ACTIVITY, 1982

(*Source: Commonwealth Tertiary Education Commission*)

Type of appointment and activity	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Full time									
TAFE only	2,709.6	2,093.2	1,331.5	764.0	875.0	301.2	95.0	186.6	8,356.1
Multi-sector	12.2	269.8	31.0	16.6	6.0	16.8	74.0	57.2	483.6
Total full-time	*2,721.8*	*2,363.0*	*1,362.5*	*780.6*	*881.0*	*318.0*	*169.0*	*243.8*	*8,839.7*
Part-time	199.0	490.0	23.6	95.4	131.9	82.9	7.1	63.9	1,093.7
Total FTE (b)	**2,920.8**	**2,853.0**	**1,386.1**	**876.0**	**1,012.9**	**400.9**	**176.1**	**307.7**	**9,933.5**
Total Numbers	**3,231**	**4,060**	**1,782**	**966**	**1,430**	**523**	**278**	**332**	**12,602**

(*a*) Includes both institution-based and head office non-teaching staff. (*b*) Full-time equivalent units.

Colleges of advanced education

Colleges of advanced education normally operate over three terms or two semesters, beginning in early to late February and running to mid-December. Students commencing courses will have completed a full secondary education, or will have demonstrated that they have high probability of successfully completing a course. There are quotas on new enrolments at many of the larger colleges with students able to enrol on a full-time or part-time basis and there are usually provisions for mature-age entry.

The principal purpose of the colleges is to provide tertiary education oriented towards practical training and industrial and social needs. The colleges aim to equip students so that immediately after graduation they may play an effective role in commerce, industry, the public service and the arts. The colleges emphasise undergraduate teaching more than research, although some colleges also offer post-graduate level courses, either at the diploma or master degree level. Most colleges have a commitment to part-time study, and many offer 'sandwich' courses, which provide a period of full-time study with associated periods of full-time employment. Some colleges also offer external courses.

Colleges of advanced education offer a great variety of courses embracing such areas as applied science, teacher education, liberal arts, business and secretarial studies and health science studies. The duration of a basic undergraduate course is two to three full-time years, at the conclusion of which an associate diploma, diploma or bachelor degree is awarded.

Some colleges may be large, diversified or multi-vocational institutions, while others are small single purpose institutions. Consolidation of some of the colleges into multi-campus or multi-purpose institutions in recent years has meant that the 1981 profile of 68 colleges of advanced education were reduced to 45 in 1984 and four types of college are evolving within the sector. These can be classified as follows:

- Central institutions of technology
- Other multi-purpose metropolitan colleges
- Regional colleges
- Specialist colleges

In addition there are two institutes of advanced education within universities.

Although teaching in colleges of advanced education is more vocationally oriented and less theoretical or academic than in universities, the system of tuition is similar. Lectures, tutorials and seminars are organised by the institution in the subjects offered. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework.

Halls of residence are provided at some colleges of advanced education, principally those located in country areas. These can accommodate some, but not usually all, students enrolled at those institutions.

ADVANCED EDUCATION: STUDENTS ENROLLED AND STAFF ENGAGED IN TEACHING ADVANCED EDUCATION COURSES, BY TYPE OF INSTITUTION, AUSTRALIA, 1983

	Type of institution					
	College of advanced education	*Institute of advanced education within a university*	*TAFE institution*	*Other Commonwealth institution*	*Other*	*Total*
	STUDENTS ENROLLED					
Course level—						
Masters degree	1,574	—	—	—	11	1,585
Graduate diploma	21,759	124	68	—	358	22,309
Bachelor degree	95,464	863	697	—	236	97,260
Diploma	31,882	865	1,265	206	1,048	35,266
Associate diploma	17,297	417	2,271	39	178	20,202
Miscellaneous (*a*)	3,029	9	126	73	34	3,271
Total students enrolled	**171,005**	**2,278**	**4,427**	**318**	**1,865**	**179,893**
	TEACHING STAFF (*b*)					
Designation—						
Above senior lecturer	737	11	5	8	6	767
Senior lecturer	2,039	33	51	9	56	2,188
Lecturer	5,570	87	226	19	155	6,057
Other	1,301	4	53	2	58	1,418
Total teaching staff	**9,646**	**135**	**335**	**38**	**276**	**10,430**

(*a*) Students who are enrolled in parts of advanced education courses, including single subjects, but who are not proceeding to an award of the institution. (*b*) Full-time equivalent units, rounded to whole numbers. The statistics exclude teaching staff at some N.S.W. institutions within the *Other* type of institution category as they are not available.

Note: Prior to 1983, advanced education statistics published by the ABS related only to Colleges of Advanced Education (CAEs) and institutes of advanced education within universities (former CAEs). The statistics for 1983 relate to all advanced education courses conducted within any tertiary education institution in Australia.

ADVANCED EDUCATION: STUDENTS BY COURSE LEVEL, TYPE OF ENROLMENT, AGE GROUP AND SEX, AUSTRALIA, 1978 TO 1983

	1978	*1979*	*1980*	*1981*	*1982*	*1983*
Course level—						
Masters degree	672	874	1,044	1,142	1,457	1,585
Graduate diploma	13,913	16,161	18,402	20,475	21,443	22,309
Bachelor degree	67,159	75,350	82,464	87,905	93,056	97,260
Diploma	57,012	50,857	43,161	37,911	33,562	35,266
Associate diploma	11,166	12,425	14,395	15,316	16,319	20,202
Miscellaneous (*a*)	..	..	2,098	2,318	2,751	3,271
Type of enrolment—						
Internal—Full-time	84,266	82,125	78,225	76,685	77,795	86,325
Part-time	51,407	56,368	62,253	64,913	65,992	67,754
External	14,249	17,174	21,086	23,469	24,801	25,814
Age (in years) (*b*)—						
19 and under	49,498	49,126	47,693	45,095	45,684	48,404
20–29	68,337	70,824	72,376	74,759	75,431	79,984
30–59	31,303	34,953	39,701	43,670	46,366	49,689
60 and over	160	181	240	440	320	439
Not stated	624	663	1,554	1,103	787	1,377
Sex—						
Males	77,809	79,800	82,823	85,439	87,504	93,316
Females	72,113	75,867	78,741	79,628	81,084	86,577
Persons	**149,922**	**155,667**	**161,564**	**165,067**	**168,588**	**179,893**

(*a*) Miscellaneous students were not identifiable prior to 1980. Miscellaneous students are students enrolled in parts of advanced education courses, including single subjects, who are not proceeding to an award.

(*b*) The 1979 components do not add to total persons because some students enrolled in single subjects are included and cannot be separately identified. Total persons are the actual number of students enrolled in advanced education courses.

Note: The statistics prior to 1983 relate only to advanced education courses conducted at colleges of advanced education and institutes of advanced education in universities (former CAEs). The statistics for 1983 relate to all advanced education courses conducted within any tertiary education institution in Australia.

ADVANCED EDUCATION: COMMENCING STUDENTS, TOTAL STUDENTS AND STUDENTS COMPLETING COURSES, BY COURSE LEVEL AND FIELD OF STUDY, AUSTRALIA

(*Source: Commonwealth Tertiary Education Commission*)

Field of study	*Masters degree*	*Graduate diploma*	*Bachelor degree*	*Diploma*	*Associate diploma*	*Miscellaneous (a)*	*Total*		
							Males	*Females*	*Persons*
COMMENCING STUDENTS, 1983									
Agriculture/forestry	—	58	185	265	889	..	1,006	391	1,397
Applied science	80	1,325	4,663	282	1,506	..	5,197	2,659	7,856
Visual and performing arts	24	300	2,043	1,046	1,008	..	1,727	2,694	4,421
Architecture/building	7	198	834	87	175	..	1,059	242	1,301
Commercial and business studies	116	2,603	9,668	252	2,322	..	9,828	5,133	14,961
Engineering	17	325	3,203	77	1,104	..	4,550	176	4,726
Social sciences	2	663	2,674	170	1,315	..	1,583	3,241	4,824
Humanities	7	529	2,061	111	716	..	1,067	2,357	3,424
Para-medical studies	18	403	1,178	1,102	374	..	711	2,364	3,075
Education	90	5,890	7,651	9,065	224	..	7,309	15,611	22,920
Miscellaneous (*a*)	..	..	..	..	..	2,646	1,427	1,219	2,646
Total	**361**	**12,294**	**34,160**	**12,457**	**9,633**	**2,646**	**35,464**	**36,087**	**71,551**
TOTAL STUDENTS, 1983									
Agriculture/forestry	—	138	615	703	1,893	..	2,377	972	3,349
Applied science	424	2,495	12,521	816	3,124	..	12,981	6,399	19,380
Visual and performing arts	39	491	4,948	2,827	2,010	..	3,977	6,338	10,315
Architecture/building	15	403	2,557	433	450	..	3,270	588	3,858
Commercial and business studies	515	4,642	29,117	695	4,800	..	28,228	11,541	39,769
Engineering	120	668	10,086	233	2,644	..	13,346	405	13,751
Social sciences	34	1,218	6,917	516	2,674	..	3,831	7,528	11,359
Humanities	36	1,001	5,114	260	1,367	..	2,464	5,314	7,778
Para-medical studies	105	549	3,540	2,415	764	..	1,688	5,685	7,373
Education	297	10,704	21,845	26,368	476	..	19,397	40,293	59,690
Miscellaneous (*a*)	..	..	..	..	..	3,271	1,757	1,514	3,271
Total	**1,585**	**22,309**	**97,260**	**35,266**	**20,202**	**3,271**	**93,316**	**86,577**	**179,893**
STUDENTS COMPLETING COURSES, 1982									
Agriculture/forestry	—	62	76	217	405	..	556	204	760
Applied science	39	468	1,769	139	388	..	1,777	1,026	2,803
Visual and performing arts	—	201	647	731	358	..	809	1,128	1,937
Architecture/building	—	88	294	66	64	..	444	68	512
Commercial and business studies	32	1,602	2,782	276	619	..	3,743	1,568	5,311
Engineering	6	80	1,010	44	310	..	1,424	26	1,450
Social sciences	1	326	861	119	567	..	611	1,263	1,874
Humanities	—	299	627	74	120	..	377	743	1,120
Para-medical studies	4	131	780	679	214	..	379	1,429	1,808
Education	39	4,101	5,018	8,106	51	..	5,485	11,830	17,315
Total	**121**	**7,358**	**13,864**	**10,451**	**3,096**	..	**15,605**	**19,285**	**34,890**

(*a*) Students enrolled in parts of advanced education courses but who are not proceeding towards an award. Miscellaneous students are not allocated to a field of study and do not appear in the course completions statistics since, by definition, they do not proceed to an award.

Note: Courses have been classified by the Commonwealth Tertiary Education Commission to ten fields of study on the basis of the vocational emphasis of a course. The ABS classified courses to fields of study on the basis of course content but this classification is no longer available.

ADVANCED EDUCATION: TEACHING AND NON-TEACHING STAFF, AUSTRALIA, 1978 TO 1983

(Full-time equivalent units, rounded to whole numbers)

	1978	*1979*	*1980*	*1981*	*1982*	*1983*
Teaching staff (*a*)—						
Full-time	8,816	8,864	8,927	8,781	8,605	9,012
Part-time	1,145	1,312	1,312	1,213	1,223	1,418
Total	**9,962**	**10,175**	**10,239**	**9,995**	**9,828**	**10,430**
Non-teaching staff (*b*)—						
Full-time	9,980	10,271	10,226	10,241	9,874	9,905
Part-time	835	905	965	974	995	966
Total	**10,814**	**11,175**	**11,191**	**11,215**	**10,869**	**10,871**

(*a*) The teaching staff statistics prior to 1983 relate only to the teaching of advanced education courses conducted at CAEs and institutes of advanced education in universities (former CAEs); the statistics for 1983 relate to the teaching of all advanced education courses conducted within any tertiary education institution in Australia.
(*b*) Non-teaching staff statistics for all years relate only to CAEs.

Universities

The university year in Australia normally runs from late February or early March to mid-December over three terms or two semesters depending on the institution. Normally students commencing courses will have completed a full secondary education, though most universities have some provisions for admitting other persons who can demonstrate that they have a high probability of successfully completing a course. There are quotas on new enrolments in most professional faculties such as medicine and engineering in Australian universities. Although there are usually provisions for mature-age entry, the majority of students proceed straight from school.

UNIVERSITIES: STUDENTS BY COURSE LEVEL, TYPE OF ENROLMENT, AGE GROUP AND SEX, AUSTRALIA, 1978 TO 1983

	1978	*1979*	*1980*	*1981*	*1982*	*1983*
Course level—						
Doctorate(*a*)	5,795	5,924	6,150	6,378	7,040	7,195
Masters degree	13,369	13,978	14,424	15,443	16,341	16,338
Bachelor degree	128,874	129,222	130,664	132,372	131,992	133,275
Non-degree	11,997	11,686	11,918	12,418	12,030	12,542
Type of enrolment(*b*)—						
Internal—Full-time	101,354	99,080	98,993	99,924	100,357	102,801
Part-time	47,191	48,919	50,325	51,462	51,900	51,231
External	11,490	12,811	13,838	15,225	15,146	15,318
Age (in years)—						
19 and under	48,958	48,281	48,372	48,085	47,594	47,953
20–29	77,522	76,504	76,810	77,514	77,111	77,583
30–59	32,482	34,505	37,111	40,015	41,576	42,573
60 and over	456	538	661	839	952	1,095
Not stated	617	982	202	158	170	146
Sex—						
Males	96,218	95,254	94,945	95,414	94,354	94,508
Females	63,817	65,556	68,211	71,197	73,049	74,842
Persons	**160,035**	**160,810**	**163,156**	**166,611**	**167,403**	**169,350**

(*a*) Comprises Ph.D.s and doctorates other than Ph.D.s. (*b*) Full-time external students prior to 1983 were included with *Internal—full-time* students. Full-time external students numbered 119 in 1978; 195 in 1979; 274 in 1980; 350 in 1981; 356 in 1982 and 342 in 1983.

There are nineteen universities in Australia, most of which are located in the capital cities. Universities are autonomous institutions established under Acts of the appropriate parliament and financed mainly by the Commonwealth Government. The basic undergraduate course in most disciplines is three or four full-time years in duration, at the conclusion of which a bachelor degree is awarded. A further one to two years of full-time study is required for a master's degree, and three to five years for a doctoral degree. Universities also offer post-graduate diploma courses in some disciplines. All universities offer full-time and part-time courses, and some offer external studies. In 1983, some 60 per cent of students were enrolled in full-time study. As well as providing undergraduate courses, Australian universities are centres of post-graduate study and research. Some universities have institutes or units involved exclusively in research and/or post-graduate teaching. In 1983, 14 per cent of university students were undertaking higher degree study.

Courses in Australian universities are normally organised in faculties or schools, and students generally elect to study in a number of subject areas, or departments, within a faculty or school. Universities will generally offer some, but not all, of the following courses of study: agriculture, architecture, arts, dentistry, economics, education, engineering, law, medicine, music, science and veterinary science.

The system of tuition in universities is normally by means of lectures, tutorials, seminars and supervised practical work. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework or of individual research.

Most universities have halls of residence on the campus which accommodate in total about 8 per cent of the students currently enrolled. Student organisations on campus provide a wide range of sporting and social facilities for students.

UNIVERSITIES: COMMENCING STUDENTS AND TOTAL STUDENTS, BY COURSE LEVEL AND FIELD OF STUDY, AUSTRALIA, 1983

Field of study	*Doctorate (a)*	*Masters degree*	*Bachelor degree*	*Non-degree*	*Total*		
					Males	*Females*	*Persons*
			COMMENCING STUDENTS				
Humanities	176	596	12,813	1,420	5,509	9,496	15,005
Fine arts	8	51	288	78	184	241	425
Social and behavioural sciences	119	606	2,927	541	1,578	2,615	4,193
Law	5	270	2,132	385	1,597	1,195	2,792
Education	92	939	1,804	2,460	2,070	3,225	5,295
Economics, commerce, government	77	1,190	6,426	646	5,570	2,769	8,339
Medicine	160	144	1,922	293	1,311	1,208	2,519
Dentistry	3	47	258	9	222	95	317
Natural sciences	476	520	8,009	976	6,221	3,760	9,981
Engineering, technology	125	514	3,314	282	3,878	357	4,235
Architecture, building	16	159	801	162	808	330	1,138
Agriculture, forestry	66	120	677	100	696	267	963
Veterinary science	16	25	293	7	174	167	341
Other or not stated	1	59	25	1,127	587	625	1,212
Total—1983	**1,340**	**5,240**	**41,689**	**8,486**	**30,405**	**26,350**	**56,755**
1982	1,731	5,682	41,479	8,058	30,794	26,156	56,950
1981	1,255	5,393	42,548	8,594	31,647	26,143	57,790
			TOTAL STUDENTS				
Humanities	1,045	2,029	38,706	2,282	15,863	28,199	44,062
Fine arts	74	208	900	189	566	805	1,371
Social and behavioural sciences	667	1,684	8,601	835	4,466	7,321	11,787
Law	54	752	8,844	621	6,178	4,093	10,271
Education	512	3,380	5,507	3,203	5,131	7,471	12,602
Economics, commerce, government	411	3,001	19,214	1,166	16,548	7,244	23,792
Medicine	828	471	9,915	437	6,790	4,861	11,651
Dentistry	26	193	1,301	9	1,107	422	1,529
Natural sciences	2,418	1,653	22,318	1,487	17,792	10,084	27,876
Engineering, technology	603	1,771	11,355	395	13,133	991	14,124
Architecture, building	103	492	3,245	283	3,055	1,068	4,123
Agriculture, forestry	344	494	2,088	154	2,286	794	3,080
Veterinary science	102	90	1,205	12	790	619	1,409
Other or not stated	8	120	76	1,469	803	870	1,673
Total—1983	**7,195**	**16,338**	**133,275**	**12,542**	**94,508**	**74,842**	**169,350**
1982	7,040	16,341	131,992	12,030	94,354	73,049	167,403
1981	6,378	15,443	132,372	12,418	95,414	71,197	166,611

(*a*) Comprises Ph.D.s and doctorates other than Ph.D.s.

UNIVERSITIES: STUDENTS COMPLETING COURSES, BY SEX AND COURSE LEVEL, AUSTRALIA, 1978 TO 1983

Course level	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
MALES						
Doctorate (other than Ph.D.)	48	47	44	43	51	45
Doctor of Philosophy (Ph.D.)	666	730	678	711	697	704
Masters degree	1,625	1,630	1,556	1,639	1,617	1,830
Postgraduate diploma	1,939	1,692	1,547	1,452	1,362	1,337
Bachelor degree	14,946	15,594	15,199	14,610	14,208	14,148
Total	*19,224*	*19,693*	*19,024*	*18,455*	*17,935*	*18,064*
FEMALES						
Doctorate (other than Ph.D.)	7	9	2	2	5	3
Doctor of Philosophy (Ph.D.)	122	141	163	184	204	202
Masters degree	445	514	538	617	623	754
Postgraduate diploma	2,129	1,873	1,740	1,662	1,599	1,507
Bachelor degree	9,746	10,561	10,660	10,872	10,999	11,579
Total	*12,449*	*13,098*	*13,103*	*13,337*	*13,430*	*14,045*
PERSONS						
Doctorate (other than Ph.D.)	55	56	46	45	56	48
Doctor of Philosophy (Ph.D.)	788	871	841	895	901	906
Masters degree	2,070	2,144	2,094	2,256	2,240	2,584
Postgraduate diploma	4,068	3,565	3,287	3,114	2,961	2,844
Bachelor degree	24,692	26,155	25,859	25,482	25,207	25,727
Total	**31,673**	**32,791**	**32,127**	**31,792**	**31,365**	**32,109**

UNIVERSITIES: STAFF BY TYPE OF EMPLOYMENT, AUSTRALIA, 1978 TO 1983

(Full-time equivalent units, rounded to whole numbers)

	1978	*1979*	*1980*	*1981*	*1982*	*1983*
Teaching and research staff—						
Full-time	10,842	10,790	10,722	10,692	10,499	10,353
Part-time	1,154	1,175	1,173	1,269	1,108	1,084
Total	**11,996**	**11,965**	**11,895**	**11,962**	**11,607**	**11,437**
Research only staff—						
Full-time	1,769	1,819	1,917	2,161	2,303	2,276
Part-time	69	54	90	83	83	66
Total	**1,838**	**1,873**	**2,007**	**2,244**	**2,386**	**2,342**
General staff—						
Full-time	21,813	21,868	21,967	22,040	21,643	21,752
Part-time	958	1,023	1,114	1,116	1,226	1,310
Total	**22,771**	**22,890**	**23,081**	**23,156**	**22,869**	**23,063**
All staff—						
Full-time	34,424	34,478	34,605	34,894	34,445	34,382
Part-time	2,181	2,251	2,377	2,468	2,417	2,459
Total	**36,605**	**36,729**	**36,982**	**37,362**	**36,862**	**36,842**

Programs which span the educational sectors

Aboriginal education

The need for special educational provisions for Aboriginal children and adults is recognised by the Commonwealth Government and currently assistance is made available for a wide variety of special measures at the early childhood, school and post-school levels. These include the employment of Aboriginal teacher aides, special enclave arrangements in tertiary institutions, TAFE programs designed to meet Aboriginal needs and support for Aboriginal independent schools. Furthermore, three schemes of student assistance provide financial support to individual students to enable them to participate in secondary and post-school education.

Since 1977, the all-Aboriginal and Torres Strait Islander *National Aboriginal Education Committee* (NAEC) has provided advice to the Commonwealth Government on the educational needs of Aboriginal people. Its role has recently been enhanced to that of principal adviser to the Minister for Education and Youth Affairs on policies in Aboriginal education. A major priority enunciated by the

NAEC is teacher education and a target of 1,000 fully trained Aboriginal teachers by 1990 has been set. To this end a special category of awards was introduced in 1984 to encourage mature age Aboriginal students to undertake studies leading to formal teaching qualifications. An additional 100 awards will be made available in 1985. Funds have also been specifically earmarked by the Commonwealth Schools Commission in 1984 for capital facilities in schools serving predominantly Aboriginal communities. The Commonwealth Schools Commission's specific purpose programs, particularly the *Participation and Equity Program*, will support projects specially related to Aboriginal education.

Migrant education—Adults

Under the *Adult Migrant Education Program* which is administered by the Commonwealth Department of Immigration and Ethnic Affairs, settlement of newly arrived immigrants is facilitated by orientation programs on housing, education, employment and welfare, together with formal English instruction. Assistance for adult migrants is also provided by the Department of Education and Youth Affairs and the Commonwealth Tertiary Education Commission.

Migrant education—Children

The *English as a Second Language Program* (ESL), formerly the *Child Migrant Education Program*, is administered by the Commonwealth Schools Commission. It is aimed specifically at improving the English language competence of children from non-English speaking backgrounds, some of whom are Australian born.

The Department of Education and Youth Affairs continues to provide English language teaching and learning materials for migrant and refugee children. A wide variety of ESL materials, as well as in-service training courses for teachers, have been provided by the Language Education Branch of the Department. Approximately one half of all Australian schools have benefitted from the materials program.

Multicultural education

The Commonwealth Schools Commission administers the *Multicultural Education Program* which aims to promote in all students an appreciation of the multicultural nature of Australian society through such projects as teaching community languages, intercultural studies and other activities aimed at encouraging respect for different cultural backgrounds.

In March 1984 the National Advisory and Co-ordinating Committee on Multicultural Education was established to co-ordinate, monitor and review multicultural education programs and activities across all levels of education. This Committee, which is serviced by the Department of Education and Youth Affairs, provides expert advice to the Minister on all areas of multicultural education.

Teacher education

Colleges of advanced education educate a majority of teachers, but a substantial number of secondary teachers and some primary teachers are trained at universities. In addition, there are a few non-government teachers colleges, operated mainly by religious denominations, which educate some of the teachers for non-government schools.

A significant reduction in enrolments in both primary and secondary teacher education courses has occurred over the last five years. Reduced teacher education enrolments has been one reason for the amalgamation of some smaller colleges of advanced education into multi-campus institutions with capacity for greater diversification.

The majority of pre-school and primary teachers undertake pre-service courses lasting three years, while most secondary teachers undertake four-year courses. In-service training opportunities are available in the form of study leave or assistance to enable teachers to upgrade their formal qualifications and also through less formal workshops, seminars or conferences.

Expenditure on education

The aim of this section is to provide information on the extent and direction of both government and private expenditure on education in recent years. The figures have been compiled in accordance with national accounting concepts. For explanation of these concepts, reference should be made to *Australian National Accounts: Concepts, Sources and Methods* (5216.0), and also to *Commonwealth Government Finance, Australia* (5502.0), and *State and Local Government Finance, Australia* (5504.0), from which figures included in this section have also been taken.

The emphasis given in this section to the outlays of the public sector reflects in part the relative importance of that sector in the provision of education services, but it is also a reflection of the lack of detailed information relating to educational activities in the private sector. Information is given, however, to show the order of magnitude of private sector spending, and also to show aggregate supply of education services and facilities. For more information on the extent and direction of both government and private expenditure on education, reference should be made to *Expenditure on Education, Australia* (5510.0)

AUSTRALIA: EXPENDITURE ON EDUCATION

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
			— $million —			
Public sector—						
Final consumption expenditure	4,115	4,653	5,062	5,673	6,550	7,537
Expenditure on new fixed assets	641	717	731	659	651	650
Final expenditure(1)	*4,756*	*5,370*	*5,793*	*6,332*	*7,201*	*8,187*
Transfer payments and expenditure on existing fixed assets (net)	375	392	391	374	385	406
Outlay	*5,131*	*5,762*	*6,185*	*6,704*	*7,585*	*8,593*
Private sector—						
Final consumption expenditure	243	255	272	293	311	337
Expenditure on new fixed assets	68	89	110	101	137	160
Final expenditure(2)	*311*	*344*	*382*	*394*	*448*	*497*
Total expenditure on education (1) + (2)	**5,067**	**5,714**	**6,175**	**6,726**	**7,649**	**8,684**
Gross domestic product	**83,165**	**90,251**	**102,225**	**114,487**	**130,563**	**147,576**
			— per cent —			
Expenditure on education as percentage of gross domestic product—						
Final consumption expenditure—						
Public	4.9	5.2	5.0	5.0	5.0	5.1
Private	0.3	0.3	0.3	0.3	0.2	0.2
Expenditure on new fixed assets—						
Public	0.8	0.8	0.7	0.6	0.5	0.4
Private	0.1	0.1	0.1	0.1	0.1	0.1
Total expenditure	**6.1**	**6.3**	**6.1**	**5.9**	**5.9**	**5.9**

Total expenditure on education

Total expenditure on education can be measured by adding together the final expenditures of the public and private sectors.

The figure derived for total expenditure on education can be regarded as a measure of the aggregate supply of education services and facilities and can therefore be related to the supply of goods and services available from domestic production (i.e. gross domestic product). Final consumption expenditure and capital expenditure on education, by sector, can also be related to gross domestic product. These relationships are shown in the table above.

Private sector

Final expenditure on education by the private sector consists of private final consumption expenditure on education services, and expenditure on new fixed assets—mainly by private non-profit organisations and financed in part by grants from public authorities for private capital purposes. Private final consumption expenditure on education services is an estimate of fees paid by persons to government schools (mainly technical and agricultural colleges), fees and gifts to universities and school fees (other than boarding fees) paid to non-government schools, business colleges, etc. Expenditure on such items as school books, uniforms, etc., and expenditure by parents associations on school equipment is not included, being treated in the Australian National Accounts as private final consumption expenditure on other goods and services (such as clothing, books, household durables, etc.). Private expenditure on new fixed assets is estimated from statistics of the value of work done on new building and major additions to buildings of private educational institutions.

Public sector

The statistics presented here for the public sector relate to those outlays which have been identified as being primarily designed to serve the purposes of 'education', broadly as defined in the United Nations System of National Accounts. Included, therefore, are outlays on administration and regulation of school systems and institutions of higher learning and educational research; on provision, inspection and support of primary and secondary schools, colleges and universities, technical training institutions, schools for the handicapped, adult education facilities, pre-school centres, etc.; on scholarships, etc.; and on subsidiary services such as transportation of school children and fare concessions. Expenditure on school medical and dental services and provision of free milk for school children are not included, as these are regarded as primarily serving the purpose of health.

All public authorities: Outlay on education

For details of outlay on eduation by Commonwealth, State and local authorities, see Year Book No. 68.

Commonwealth authorities

Details of outlay on education by authorities of the Commonwealth Government are given in the following table.

COMMONWEALTH AUTHORITIES: OUTLAY ON EDUCATION

	1980–81	*1981–82*	*1982–83p*
		–$ million–	
Primary and secondary education	990.3	1,194.1	1,431.2
Tertiary education—			
University education	950.2	1,078.1	1,180.2
Other higher education	653.2	682.0	760.5
Technical and further education	229.6	263.1	303.0
Tertiary education n.e.c.	12.9	14.5	17.1
Total tertiary eduation	*1,845.9*	*2,037.7*	*2,260.7*
Preschool education and education not definable by level—			
Preschool education	31.4	33.1	33.2
Special education	—	0.1	0.1
Other education not definable by level	43.1	49.6	56.3
Total preschool education, etc	*74.5*	*82.7*	*89.6*
Transportation of students	2.6	3.6	4.1
Education n.e.c.	19.5	20.1	15.6
Total outlay on education	**2,932.8**	**3,338.3**	**3,801.2**
Of which—			
Current outlay	2,574.8	2,944.7	3,363.8
Capital outlay	358.0	393.6	437.3
Total outlay on all purposes	**37,794.3**	**43,341.1**	**51,172.4**
		–per cent–	
Outlay on education as a percentage of total outlay	7.8	7.7	7.4

OFFICE OF YOUTH AFFAIRS

The Office of Youth Affairs was set up by the Commonwealth Government in February 1977 in response to the findings of the Study Group on Youth Affairs. The Office has overall responsibility for the co-ordination of all Commonwealth policies, programs and proposals affecting young people.

Programs

Program of Assistance to Youth Organisations (PAYO)

Under this program, grants are provided for projects to assist national youth organisations to extend their services, broaden their participation of young people in management and organisational decision making and to improve planning co-ordination and the quality and relevance of their activities.

In addition to project related assistance, grants are provided to help establish effective national secretariats for national youth organisations.

Australian-Greek Presidential Awards

The awards were established for an initial 3 year period in 1982 to enable young people to work or study in Greece for periods of up to twelve months. They aim to foster the maintenance and development of Greek culture within Australia's multicultural society.

International Youth Exchanges

The Office promotes opportunities for developing friendship and understanding between young people of Australia and countries of the Asia-Pacific Region. The international program has two aspects:

(i) a program of international youth exchanges sponsored by governments; and

(ii) assistance to Australia-based non-government organisations to stimulate interest and involvement in international youth affairs through:

- study tour
- exchange
- conference
- training

Commonwealth Youth Program (CYP)

The Office of Youth Affairs co-ordinates Australia's policy and administrative contribution to the CYP. This includes administering programs of overseas participants within Australia, nominating Australian applicants for scholarships and training courses and organising Australian representation at the Regional Advisory Board, Committee of Management and Youth Affairs Council meetings.

Policy development

In order to more effectively undertake its role as the co-ordinator of youth policy development across all portfolios, the Office obtained additional staff in 1983–84. A Standing Inter-Departmental Committee on Youth Policies was also established to facilitate a comprehensive approach to Government policies for young people. The Committee is comprised of the major portfolios concerned with education, social and economic policies.

In addition, arrangements were made for an expert team from the Organisation for Economic Co-operation and Development (OECD) to visit Australia in November-December 1983 to carry out a review of Australia's youth policies. The Review Team's report, which will address the major issues affecting young people today, including employment and unemployment, education, training and income-support, is expected to be made available to the Government early in 1985.

The Office of Youth Affairs, together with the Social Welfare Policy Secretariat of the Department of Social Security, has also carried out a detailed review of income-support for young people. As the issues involved in providing adequate levels of income-support to young people are quite complex, a discussion paper has been issued in the first instance, following the review. It is intended that the discussion paper stimulate responses and obtain the widest possible input to the issue before further policy development is undertaken.

Youth Affairs Conference

The Office services a Youth Affairs Conference which meets twice yearly; this Conference comprises representatives from Commonwealth and State and Territory Governments and the voluntary sector and is an important intersectoral co-ordinating structure. It also services the Youth Ministers Council, which meets annually and comprises Commonwealth and State and Territory Ministers responsible for youth affairs.

The Office is conducting an examination and consultation on youth worker training in all sectors.

International Youth Year (IYY) 1985

The Office also includes a secretariat for International Youth Year, 1985—*see* special article at the end of this chapter. It services the National IYY Co-ordination Committee, comprising the Commonwealth, all State and Territory Governments, unions, employers, local government and the voluntary sector.

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Colleges of Advanced Education, Australia (4206.0)
University Statistics, Australia (4208.0)
National Schools Statistics Collection: Government Schools, Australia (4215.0)
Non-government Schools, Australia (4216.0)

Financial aspects are dealt with in the annual publications—

Commonwealth Government Finance, Australia (5502.0)
State and Local Government Finance, Australia (5504.0)
Expenditure on Education, Australia (5510.0)

Other Publications

Annual publications produced by the Commonwealth Tertiary Education Commission, are:

Selected University Statistics
Selected Advanced Education Statistics
Selected TAFE Statistics

Publications produced regularly by the Department of Education and Youth Affairs are:

Australian Education Directory
Directory of Higher Education Courses
Directory of Education Research and Researchers in Australia
Education in Australia
Education News (a departmental journal)
Hemisphere (a bi-monthly Asian-Australian magazine)
Major Trends and Developments in Australian Education
Primary and Secondary Schooling in Australia

The annual reports of the respective State education departments also provide detailed statistical information.

THE INTERNATIONAL YEAR OF YOUTH

(*This special article has been prepared from material provided by the Office of Youth Affairs*)

In 1978 the United Nations General Assembly and the Economic and Social Council adopted numerous resolutions on the position of youth in the world. One was that an international youth year could serve to mobilise efforts to improve the quality of life for young people. After consultation with its members, the UN designated 1985 as International Youth Year (IYY).

The United Nations defines youth as those aged 15 to 24. In Australia young people aged from 12-25 (2.5 million youths: 22 per cent of the population) became the target of IYY, with focus on those aged 14 to 18.

The UN themes for IYY are participation, development and peace, and these themes were considered apt for Australia. For example:

- Participation refers to the need for young people to help make the decisions which affect them. In Australia, for example, there is the recent development of Student Representative Councils at most secondary schools which allows young people to participate in the decisions affecting their education.
- Development encompasses the right of all young people to develop to their highest potential, which might include involvement with local institutions where they could develop the personal skills needed to create their future—indeed the slogan adopted for IYY in Australia is 'creating tomorrow today".
- Peace includes such issues as disarmament and tolerance, issues with which young people have become more involved during the last ten years. Youthful intolerance of race or ethnic origin still persists, however, and every attempt is being made during IYY for young people to teach others within their peer group that tolerance is just as important an element of peace as is a move to disarm the world of its nuclear armoury.

In Australia, IYY is viewed as a catalyst to engage young people in all aspects of public life. This means young people have to become involved more easily in decision making processes. It also means increasing the awareness of all Australians to the rights, needs and hopes of the youth of Australia. Steps towards this were achieved through the IYY promotions campaign which built community awareness through advertising and other publicity.

Initial involvement called for established non-government youth organisations such as Youth Affairs Councils to consult with other young people. Additionally, other members of the National IYY Co-ordinating Committee contacted young people through their own areas of responsibility, for example the unions (Australian Council of Trade Unions), employers (Confederation of Australian Industry) and local government (Australian Council of Local Government Associations).

The Commonwealth Government through the Office of Youth Affairs (OYA) is involved in other initiatives, commencing with youth policies and programs affecting young people.

Programs affecting the status of young people

The Commonwealth Government recently completed a major review of youth policies. The results should enhance the delivery of government programs for young people in future years. Several initiatives which will have a long-term effect on the status of Australian youth have already commenced. These are as follows:

- Income support for young people. The Commonwealth Government has stimulated debate on income support provisions for young people with a view to rationalising those provisions and eliminating existing inequities. For example, some student scholarships provide a lower level of financial support than do unemployment benefits.
- Rationalisation of youth worker training. The Commonwealth Government has investigated the provision of in-service and other forms of training for young workers employed in a range of organisations. The review of training will result in recommendations of long term benefit to young people.
- Alternative employment opportunities. Pilot training programs have begun to test the value and acceptability of various options for alternative employment outside the conventional workforce.
- Publication of the Australian Bureau of Statistics Youth Report, 1985, which provides a statistical profile of young people in Australia. It is a useful reference document for organisations and individuals concerned with the status of young people.

- Student participation. OYA and the Commonwealth Schools Commission are fostering the development of student representative councils at secondary schools as a means of involving students in decisions which affect their education. Further, it is expected to increase the relevance of schooling and encourage more students to complete their secondary education.
- Program of assistance to youth organisations. To commemorate International Youth Year funding of $100,000 has been provided to a variety of organisations.
- The Participation and Equity Program (PEP) is the centrepiece of the Government's policies for youth. PEP began operating at the beginning of 1984. It aims to encourage all young Australians to complete the equivalent of a full secondary education, either in school, in a Technical and Further Education (TAFE) college or in some combination of work and education. The achievement of this objective is set for the end of this decade. Over $145 million has been committed to this program which illustrates its importance to Australia.

The government also increased tertiary education opportunities. In addition to an extra 3,000 places in higher education provided in 1984 over the next triennium, it is intended to allocate another 15,000 places at universities and colleges of advanced education, and with the co-operation of State Governments, an extra 15,000 places in TAFE. There is a need for even more places for intending students.

As a positive step to create temporary jobs in these times of high youth unemployment, OYA called on the resources available through the Commonwealth Government under its Community Employment Program (CEP). Approval was given for the Department of Education and Youth Affairs to employ 108 people under the CEP for International Youth Year activities. This project received a Commonwealth grant of $1.8 million and employed participants for an average of 35 weeks in centres around Australia. The project encouraged and assisted specific groups of disadvantaged young people to participate in IYY activities, and attempted to involve young people in youth arts festivals and to develop youth art networks.

Each State and Territory employed an arts project officer and an office assistant, supported by a project co-ordinator and an assistant in each capital city. Thirty-four project officers were allocated for specific projects aimed at target groups of disadvantaged young people. These were identified as young women, young Aboriginals, young people from ethnic backgrounds, young mentally and physically disabled people, and young people from remote and isolated areas. The project officers assisted these groups in establishing and maintaining links with IYY and the youth sector.

In line with the Government's objectives for IYY in Australia, this project laid the foundation for greater participation by disadvantaged and minority groups of young people in 1985 and in future years. Previously some of these young people had felt left out of national planning and decision making, although the voluntary youth sector had started making inroads previously to remedy this.

The next government initiative was to develop a formal national program of activities to give impetus to the year. The national IYY program has five components—three being the IYY themes of participation, development and peace. The fourth is general promotional work including a national advertising and publicity campaign, public relations activity designed to raise community awareness and the promotion of discussions of youth issues. The fifth involves policy development work either related directly to IYY or given a particular significance because of it.

There are three activities under the participation theme. The first is a series of investigations on issues facing particularly disadvantaged groups of young people. The groups were those mentioned under the CEP project. In each case major investigations into these issues involved governments and those non-government organisations concerned vitally with the needs of the different groups. Five major publications resulting from these investigations will be published at the end of 1985 and will form the basis of further policy development work by the Commonwealth Government. The development of these projects was supported by the major CEP project discussed earlier.

The second activity under the participation theme involves the youth arts. Throughout Australia a number of youth arts festivals are being conducted under State Government support, but promoted and supported nationally by the Commonwealth. It is intended that these culminate in youth arts festivals to be held in a major national arts festival in 1988 Australia's Bicentenary year.

Also within the parameters of this second activity, a series of rock music concerts, seminars and workshops has been organised throughout the country. The purpose is to promote the work of lesser known bands.

A number of other activities were organised also through bodies such as the Special Broadcasting Service, and through grants which were made to bodies involved in youth arts. In particular, grants were made through the Australia Council's Youth Arts Incentive Scheme and an IYY concert was organised with the Australian Youth Orchestra as part of Adelaide's autumn festival.

The third activity involving this theme was to engage young people's participation through radio networks. In November/December 1984 a national radio hotline operated for two to three weeks in every capital city. The purpose was to ask young people how they wished to be involved in IYY. In many cases the participating radio stations continued or adapted the service into 1985. During the year, these and other radio stations have continued to conduct regular widespread discussions on youth issues.

The development theme of IYY involves a number of activities, undertaken by government departments and authorities and includes the following:

- World Environment Day (June 5) with theme of youth involvement and slogan "You're never too young to care"—Australian Environment Council.
- Youth Arts Incentive Scheme ($1.17m)—Australia Council.
- National program of training courses ($6.05m)—Australian Film and Television School.
- Series of 13 half-hour programs directed at youth—Special Broadcasting Service.
- Wayside Chapel to establish national network of Life Education Centres directed towards young people—Grant from Department of Health.
- National dietary study of Australian school children and special drug education programs in 1985-86—Department of Health.
- National survey of fitness, health and physical performance in schools—Department of Sport, Recreation and Tourism.
- Award for design excellence for buildings designed expressly for use by young people and post-occupancy evaluation of a school or similar facility involving students as members of the review team—Department of Housing and Construction.
- Provision of funds under the Grant-in-Aid Scheme and the Migrant Project Subsidy Scheme for work with, and projects for, migrant youth—Department of Immigration and Ethnic Affairs.
- Joint funding with the ABC of a series of six Aboriginal profiles and funding for two plays for national touring, one on youth for youth audiences—Department of Aboriginal Affairs.

The fourth component of the national IYY program includes a national promotion campaign to raise community awareness about IYY and about young people and the issues that face them. This involves television and radio advertising and the production of a considerable amount of printed material including a resource action kit to enable both younger and older people to become involved in IYY.

Through its promotional work, the Commonwealth Government sought to enlist the aid of all sectors in the community, particularly the corporate sector, in becoming involved in young people's issues.

Major reviews in the final component of the national IYY program, policy development, included the inquiry into labour market programs, much of which concerned youth employment and training programs and a fundamental review of income support arrangements for young people to be completed in time for the 1985-86 Budget.

Apart from these major reviews other special policy developments have been finalised, including the Supported Accommodation Assistance Program for young people in crisis accommodation, developments under the Community Youth Support Scheme and a review of youth employment services for young ethnic groups conducted by the Australian Institute of Multicultural Affairs.

The aim of the Government in relation to the International Year of Youth is not to control the activities but rather to provide direction. It set the objective of helping young people to bring about long term change and improvement in their lives, just as International Woman's Year and the International Year of Disabled Persons brought real and lasting benefit to special groups in the community.

Young people in 1985 and hopefully into the future will be pursuing their own objectives, bringing their own pressure to bear on government systems to react to what they want, not only within Commonwealth policy making and administration but at the grass roots local community and state levels.

The central objective of IYY'85 is a better future for young people everywhere. The world may witness some tangible evidence of this in the clear connections IYY has with other international years, starting earlier with the Year of the Child, and now, moving in 1986 to the International Year of Peace, remembering peace is an IYY theme. 1987 will be the Year of Shelter focussing on homelessness which has also become a growing problem among young people.

CHAPTER 13

AGRICULTURAL INDUSTRIES

This chapter is divided into the following major parts:—Introduction; Sources of statistics and definitions of units; Structural statistics (provides data on the legal arrangements, size and industry class of the business organisations operating within the agricultural sector); Financial statistics (provides estimates of the financial performance of business organisations engaged in agricultural activities); Value of agricultural commodities produced and index of values at constant prices; Apparent consumption of foodstuffs and nutrients; Land utilisation; Crop statistics; Livestock statistics; Livestock products; Agricultural improvements and employment.

Introduction

The development of Australian agricultural industries has been determined by interacting factors such as profitable markets, the opening up of new land (including the development of transport facilities) and technical and scientific achievements. Subsistence farming, recurring gluts, low prices and losses to farmers were gradually overcome by the development of an export trade. Profitable overseas markets for merino wool and wheat, and the introduction of storage and refrigerated shipping for the dairying and meat industry combined to make the agricultural sector Australia's main export earner. Until the late 1950's, agricultural products comprised more than 80 per cent of the value of Australia's exports. Since then, the proportion of Australia's exports coming from the agricultural sector has declined markedly.

However, this decline in importance has been due not to a decline in agricultural activity but rather to an increase in the quantity and values of the exports of the mining and manufacturing sectors. In fact, the agricultural sector experienced an increase in total output over that period. One interesting aspect of this increase in output is that it was accompanied by a large reduction in the size of the agricultural labour force, implying a large growth in productivity within the sector.

Sources of statistics and definitions of units

Agricultural Census

The major source of the statistics in this chapter is the Agricultural Census conducted at 31 March each year. This collects a wide range of information from agricultural establishments with agricultural activity covering the physical aspects of agriculture such as area and production of crops, fertilisers used, number of livestock disposed of, etc. In conjunction with the Census, certain supplementary collections are conducted in some States where this has proved expedient, e.g. where the harvesting of certain crops has not been completed by 31 March (apples, potatoes, etc.), special returns covering the crops concerned are collected after the completion of the harvest.

The ABS excludes from the Census those establishments which make only a small contribution to overall agricultural production. Thus, establishments with agricultural activity have been included in the 1983–84 Census if they had, or were expected to have, an estimated value of agricultural operations of $2,500 or more. In previous years the value cut off was applied at the enterprise level—for 1981–82 the value was $2,500 and for earlier years, $1,500.

While these changes have resulted in some changes in the counts of numbers of establishments appearing in publications, the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with small scale operations may be affected to a greater extent.

Details of the method used in the calculation of the estimated value of agricultural operations are contained in the publication *Agricultural Industries: Structure of Operating Units, Australia* (7102.0). Prior to 1975–76, all agricultural establishments with areas of one hectare or more were included. In addition, establishments of less than one hectare tended to be included where significant agricultural activity was undertaken, e.g. poultry farms, commercial market gardens and nurseries.

Integrated Register Information System (IRIS)

The former register, the Integrated Agricultural Register, contained information about the area, type, legal status, level of activity and location of units engaged in agriculture and was originally compiled by adding data in a special census of economic units conducted in 1974 to existing data relating to physical characteristics of agricultural establishments. Details of agricultural units from

1982–83 have been derived from the Integrated Register Information System (IRIS) which has absorbed the IAR. Details of the structure of economic units engaged in agriculture, in hierarchical order, are:

- *Enterprise* (the second level of economic unit). The enterprise is that unit comprising all operations in Australia of a single operating legal entity. (The term 'single legal entity' means a sole trader, partnership, company, trust, co-operative or estate in the private sector, or a department, local government authority or statutory authority in the government sector). For the agricultural sector, a 'multi-State enterprise' is an enterprise which belongs to an enterprise group which undertakes agricultural activities in more than one State.
- *Establishment* (the smallest economic unit). The establishment covers all operations carried out by one enterprise at a single physical location.

Agricultural Finance Survey (AFS)

The triennial AFS collects detailed financial statistics from a sample of agricultural enterprises. The main purpose of the survey is to produce estimates of the financial performance of the agricultural sector and its component industries.

Other Statistical Collections

The ABS conducts a number of other collections to obtain agricultural statistics. These include collections from wool brokers and dealers, livestock slaughterers and other organisations involved in the marketing and selling of agricultural commodities.

Structural statistics

The following tables provide information relating to the structure of operating units during 1982–83. Although the definitions of the operating units have been provided above, the following terminology is also used:

- *Industry*. As set out in the *Australian Standard Industrial Classification* (ASIC) (1201.0 and 1202.0). These publications provide details of the methodology used in determining the industry class of an economic unit.
- *Estimated Value of Agricultural Operations* (EVAO). This is determined by valuing the physical crop and livestock information collected in the Agricultural Census.

A further explanation of this terminology and more detailed statistics are given in the publication *Agricultural Industries: Structure of Operating Units, Australia* (7102.0).

NUMBER OF UNITS BY TYPE OF UNIT

Year/unit	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	*Aust.* (*a*)
1980–81—							
Agricultural establishments	52,030	46,581	34,173	19,629	17,054	5,953	175,756
Non-agricultural establishments with agricultural activity				—n.a.—			
Agricultural enterprises	50,133	45,060	32,677	19,113	15,767	5,685	169,158
Non-agricultural enterprises operating agricultural establishments	884	872	439	276	342	202	3,065
1981–82(*b*)—							
Agricultural establishments	52,695	46,167	33,820	19,170	16,613	5,664	174,166
Non-agricultural establishments with agricultural activity	(*c*)952	737	411	(*d*)502	457	116	3,175
Agricultural enterprises	50,872	44,873	32,342	18,699	15,354	5,439	168,309
Non-agricultural enterprises operating agricultural establishments	831	793	407	251	316	164	2,795
1982–83p—							
Agricultural establishments	(*c*)53,055	46,661	33,764	(*d*)20,078	16,471	5,702	175,731
Non-agricultural establishments with agricultural activity	(*c*)753	506	272	(*d*)287	338	138	2,294
Agricultural enterprises				—n.a.—			
Non-agricultural enterprises operating agricultural establishments				—n.a.—			

(*a*) Includes enterprises in the Northern Territory, Australian Capital Territory and multi-State enterprises. (*b*) Not comparable with figures for previous periods. Prior to 1981–82 an enterprise was not included if the estimated value of agricultural operations derived was less than $1,500: for 1981–82 this estimated value was increased to exclude enterprises below $2,500. For direct comparisons with previous periods refer to Explanatory Notes to the publication *Agricultural Industries: Structure of Operating Units, Australia*, 1981–82 (7102.0). (*c*) Includes the A.C.T. (*d*) Includes the N.T.

AGRICULTURAL ESTABLISHMENTS, INDUSTRY AND ESTIMATED VALUE OF AGRICULTURAL OPERATIONS: 1982–83

ASIC Code	Industry of establishment Description	Estimated value of agricultural operations ($'000) 3–9	10–19	20–29	30–39	40–49	50–59	60–74	75–99	100–149	150–199	200 and more	Total enterprises(a)
0124	Poultry for meat	27	53	49	66	77	65	88	87	73	21	72	693
0125	Poultry for eggs	52	63	41	43	45	47	50	81	144	118	370	1,075
0134	Grapes	680	830	893	704	545	297	278	151	110	26	45	4,687
0135	Plantation fruit	241	443	368	217	184	139	133	127	87	28	41	2,039
0136	Orchard and other fruit	1,306	1,170	837	646	502	407	439	449	433	178	221	7,057
0143	Potatoes	58	116	126	121	150	135	171	225	260	134	215	1,722
0144	Vegetables (except potatoes)	737	818	561	386	268	242	249	297	374	211	443	4,726
0181	Cereal grains (incl. oilseeds n.e.c.)	1,089	1,300	1,180	1,043	937	831	1,066	1,503	1,525	816	1,771	13,399
0182	Sheep-cereal grains	668	1,712	2,472	2,715	2,513	2,279	2,664	3,179	3,299	1,527	1,869	24,966
0183	Meat cattle-cereal grains	482	703	626	521	427	337	385	406	407	166	179	4,682
0184	Sheep-meat cattle	1,487	1,874	1,648	1,418	1,102	858	1,004	1,164	1,076	465	575	12,994
0185	Sheep	3,698	3,699	2,928	2,401	1,805	1,479	1,610	1,707	1,533	555	577	23,226
0186	Meat cattle	11,705	7,580	3,608	2,133	1,359	993	961	1,002	969	396	731	34,686
0187	Milk cattle	595	1,337	2,194	3,283	3,340	2,542	2,429	1,945	1,238	311	176	19,558
0188	Pigs	350	430	355	283	220	179	252	318	320	178	269	3,230
0191	Sugar cane	18	57	125	234	380	524	924	1,299	1,441	599	606	6,214
0192	Peanuts	12	40	56	64	54	46	65	64	49	18	16	486
0193	Tobacco	1	3	21	38	60	95	155	186	139	36	16	754
0194	Cotton	2	2	5	2	6	5	7	12	40	39	235	358
0195	Nurseries	246	242	250	118	140	210	89	119	216	87	203	1,959
0196	Agriculture n.e.c.	2,294	1,599	823	500	285	211	192	195	159	52	73	7,220
	Total (ASIC Code 01)	**25,748**	**24,071**	**19,166**	**16,936**	**14,399**	**11,921**	**13,211**	**14,516**	**13,892**	**5,961**	**8,703**	**175,731**
02	Services to agriculture	97	73	25	18	18	5	12	6	3	—	1	290
03	Foresty and logging	24	19	3	5	5	2	—	1	3	—	1	85
04	Fishing and hunting	10	1	2	1	—	1	—	1	—	—	—	20
	Total (ASIC Division A)	*25,879*	*24,164*	*19,196*	*16,960*	*14,422*	*11,929*	*13,223*	*14,524*	*13,898*	*5,961*	*8,705*	*176,126*
B	Mining	8	6	1	—	2	—	—	1	2	—	—	25
C	Manufacturing	47	35	32	15	5	5	10	8	18	6	18	239
D	Electricity, Gas and Water	—	1	—	—	2	—	—	—	—	—	1	4
E	Construction	148	97	33	17	11	11	7	5	4	2	1	391
F	Wholesale and Retail Trade	106	76	45	27	24	29	8	12	9	3	12	402
G	Transport and Storage	134	95	36	17	15	7	7	3	9	1	3	365
H	Communication	—	—	—	—	—	—	—	—	—	—	—	—
I	Finance, Property and Business Services	33	17	6	2	4	1	—	1	—	1	—	74
J	Public Administration and Defence	—	1	—	1	—	—	1	1	—	—	—	4
K	Community Services	38	23	24	16	16	12	24	25	33	14	29	271
L	Recreation, Personal and Other Services	47	29	18	4	1	1	—	—	1	1	—	124
	Total all industries	**26,440**	**24,544**	**19,391**	**17,059**	**14,502**	**11,995**	**13,280**	**14,580**	**13,974**	**5,989**	**8,769**	**178,025**

(*a*) Includes establishments with an EVAO of less than $3,000.

AGRICULTURAL ESTABLISHMENTS(a) INDUSTRY: 1982–83

ASIC Code	Industry of establishment Description	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia(b)
0124	Poultry for meat	351	125	97	65	43	11	693
0125	Poultry for eggs	361	242	206	111	116	33	1,075
0134	Grapes	749	1,876	142	1,701	210	8	4,687
0135	Plantation fruit	1,061	—	867	—	108	—	2,039
0136	Orchard and other fruit	2,138	1,260	1,080	1,580	646	348	7,057
0143	Potatoes	202	654	252	141	202	271	1,722
0144	Vegetables (except potatoes)	1,054	816	1,244	830	528	244	4,726
0181	Cereal grains (incl. oilseeds n.e.c.)	3,520	2,447	3,432	1,427	2,533	39	13,399
0182	Sheep-cereal grains	8,341	4,846	358	5,774	5,547	99	24,966
0183	Meat cattle-cereal grains	1,887	439	2,140	142	50	21	4,682
0184	Sheep-meat cattle	4,980	4,404	906	1,144	901	628	12,994
0185	Sheep	8,256	7,109	1,303	3,113	2,185	1,231	23,226
0186	Meat cattle	11,564	9,197	9,695	987	1,894	1,129	34,686
0187	Milk cattle	3,257	10,248	2,814	1,369	633	1,234	19,558

For footnote *see* end of table.

AGRICULTURAL ESTABLISHMENTS(*a*) INDUSTRY: 1982–83—*continued*

ASIC Code	*Industry of establishment* *Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Australia(b)*
0188	Pigs	1,014	564	841	466	214	129	3,230
0191	Sugar cane	529	—	5,684	—	1	—	6,214
0192	Peanuts	5	—	480	—	1	—	486
0193	Tobacco	49	276	429	—	—	—	754
0194	Cotton	205	—	153	—	—	—	358
0195	Nurseries	790	378	342	197	195	49	1,959
0196	Agriculture n.e.c.	2,639	1,780	1,299	793	464	228	7,220
	Total (ASIC Code 01)	**52,952**	**46,661**	**33,764**	**19,840**	**16,471**	**5,702**	**175,731**
02	Services to agricutlure	87	78	56	25	41	3	290
03	Foresty and logging	36	8	13	1	7	20	85
04	Fishing and hunting	5	—	2	4	8	1	20
	Total (ASIC Division A)	*53,080*	*46,747*	*33,835*	*19,870*	*16,527*	*5,726*	*176,126*
B	Mining	13	5	2	2	3	—	25
C	Manufacturing	73	41	20	55	40	10	239
D	Electricity, Gas and Water	—	3	—	1	—	—	4
E	Construction	135	112	29	48	49	18	391
F	Wholesale and Retail Trade	120	89	44	68	57	24	402
G	Transport and Storage	121	95	23	32	53	41	365
H	Communication	—	—	—	—	—	—	—
I	Finance, Property and Business Services	35	15	5	12	7	—	74
J	Public Administration and Defence	2	—	—	2	—	—	4
K	Community Services	83	14	71	21	57	17	271
L	Recreation, Personal and Other Services	43	46	7	8	16	4	124
	Total all industries	**53,705**	**47,167**	**34,036**	**20,119**	**16,809**	**5,840**	**178,025**

(*a*) Includes establishments with an EVAO of less than $3,000. (*b*) Includes the Northern Territory and the Australian Capital Territory.

Financial statistics

Estimates of selected financial aggregates of enterprises predominantly engaged in agricultural activity are shown in the following tables. The estimates have been derived from the triennial Agricultural Finance Survey. Up to 1977–78 the survey was conducted on an annual basis. The notation 'S.E.%' stands for 'standard error %' which is a measure of the sampling error resulting from the use of sampling techniques as opposed to the results which would have been obtained from a comparable complete collection. A more detailed explanation of standard errors and other terms used in the tables, as well as more detailed statistics, is given in the publication *Agricultural Industries, Financial Statistics, Australia, 1980–81* (7507.0). The next Agricultural Finance Survey will be conducted in 1985–86 with reference to the year 1984–85.

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES, 1974–75 TO 1977–78 AND 1980–81

	1974–75		*1975–76*		*1976–77*		*1977–78*		*1980–81*	
	$m	*S.E. %*	*$m*	*S.E. %*	*$m*	*S.E. %*	*$m*	*S.E. %*	*$m*	*S.E. %*
Sales from crops	2,345.5	2	2,545.2	3	2,900.4	2	2,281.5	2	4,543.7	1
Sales from livestock	1,099.7	5	1,103.5	3	1,404.3	2	1,677.8	2	3,134.6	2
Sales from livestock products	1,382.7	2	1,461.4	3	1,632.4	2	1,682.0	1	2,422.2	2
Turnover	4,985.8	2	5,237.1	2	6,133.6	1	5,874.2	1	10,439.7	1
Purchases and selected expenses	2,278.1	2	2,514.4	3	2,690.4	1	2,838.7	1	5,283.5	1
Value added	2,897.3	3	2,783.1	5	3,310.0	1	2,869.9	1	5,034.9	2
Adjusted value added	2,576.0	4	2,449.1	2	2,924.6	2	2,472.6	2	4,471.7	2
Gross operating surplus	2,083.8	4	1,097.4	5	2,401.7	2	1,896.4	2	3,669.1	2
Cash operating surplus	1,658.7	3	1,594.1	3	2,291.8	2	1,801.6	2	3,419.1	2
Total net capital expenditure	620.0	4	801.7	4	820.9	3	772.7	3	1,301.3	3
Gross indebtedness	2,972.5	4	3,422.2	4	3,397.0	3	3,395.8	3	4,941.0	3

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES, 1980–81
($ million)

	N.S.W	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust. (a)*
Sales from crops	1,048.8	737.5	1,413.4	559.3	710.6	49.1	4,543.7
Sales from livestock	989.2	658.2	617.7	278.1	372.1	97.3	3,134.6
Sales from livestock products	667.1	715.5	249.2	281.9	407.9	81.4	2,422.2
Turnover	2,798.3	2,166.2	2,383.7	1,143.5	1,536.9	238.2	10,439.7
Purchases and selected expenses	1,570.3	1,030.3	1,151.7	515.2	800.8	135.0	5,283.5
Value added	1,136.8	1,121.1	1,192.8	651.8	727.7	115.1	5,034.9
Adjusted value added	961.6	998.2	1,079.6	594.6	659.3	100.3	4,471.7
Gross operating surplus	750.7	852.0	869.7	508.7	569.7	71.3	3,669.1
Cash operating surplus	733.4	797.9	834.2	448.7	514.0	44.9	3,419.1
Total net capital expenditure	312.8	223.4	334.4	184.4	200.2	31.3	1,301.3
Gross indebtedness	1,320.7	870.3	1,030.7	571.0	870.6	171.3	4,941.0

(a) Includes Northern Territory and Australian Capital Territory and estimates for multi-state enterprises.

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES, BY INDUSTRY, 1980–81
($ million)

	Poultry (0124–0125)	*Fruit (0134–0136)*	*Vegetables (0143–0144)*	*Cereal grains oilseeds (n.e.c.) (0181)*	*Sheep-cereal grains (0182)*	*Meat cattle-cereal grains (0183)*	*Sheep-meat cattle (0184)*
Sales from crops	6.3	508.0	357.4	1,083.5	1,133.5	173.5	37.6
Sales from livestock	67.0	9.1	26.2	173.5	442.1	156.8	580.1
Sales from livestock products	199.9	2.2	5.6	87.5	528.7	5.8	311.4
Turnover	290.6	549.7	399.1	1,372.7	2,151.7	349.1	964.5
Purchases and selected expenses	193.2	242.4	203.2	684.8	1,046.7	185.7	520.1
Value added	98.5	307.3	197.0	701.6	1,084.1	152.0	366.2
Adjusted value added	88.0	278.3	182.3	634.4	979.9	131.1	297.7
Gross operating surplus	60.6	187.7	135.3	575.3	885.3	110.8	191.3
Cash operating surplus	52.2	175.6	125.5	496.5	830.3	111.4	241.5
Total net capital expenditure	20.9	66.0	39.4	202.3	297.0	53.7	85.8
Gross indebtedness	81.8	198.5	103.2	801.0	1,018.5	163.4	483.6

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES, BY INDUSTRY—*continued*
1980–81
($ million)

	Sheep (0185)	*Meat cattle (0186)*	*Milk cattle (0187)*	*Pigs (0188)*	*Other agriculture (0191–0196)*	*All Industries (01)*
Sales from crops	82.5	38.2	32.3	10.0	1,080.9	4,543.7
Sales from livestock	351.5	906.8	195.9	187.3	38.3	3,134.6
Sales from livestock products	513.2	25.2	714.2	14.7	13.8	2,422.2
Turnover	970.9	1,013.2	965.1	217.4	1,195.8	10,439.7
Purchases and selected expenses	511.0	595.6	447.9	157.7	495.1	5,283.5
Value added	463.1	362.6	535.4	64.4	702.7	5,034.9
Adjusted value added	403.7	283.8	486.5	56.4	649.7	4,471.7
Gross operating surplus	320.4	188.2	432.7	39.3	542.1	3,669.1
Cash operating surplus	271.1	214.7	371.1	26.1	502.9	3,419.1
Total net capital expenditure	99.3	123.8	101.9	26.1	184.9	1,301.3
Gross indebtedness	514.0	525.2	550.0	105.2	396.4	4,941.0

Value of agricultural commodities produced and index of values at constant prices

Definitions

Gross value of commodities produced is the value placed on recorded production at the wholesale prices realised in the market place.

Marketing costs include freight, cost of containers, commission and other charges incurred in marketing.

Local value of commodities produced is the value placed on commodities at the place of production and is ascertained by deducting marketing costs from the gross value.

Index of values at constant prices is the index of the gross value of commodities produced at constant prices, i.e. it is a measure of change in value after the direct effects of price changes have been eliminated.

VALUES OF AGRICULTURAL COMMODITIES: 1982–83

	Gross value of agricultural commodities produced	*Marketing costs*	*Local value of commodities produced*	*Index of values at constant prices of agricultural commodities produced(a) (Base year: 1979–80 = 1000)*
	$m	$m	$m	
Crops	5,010.3	692.6	4,317.7	763
Livestock slaughterings and other disposals	3,452.2	271.9	3,180.3	998
Livestock products	3,245.8	208.1	3,037.7	985
Total agriculture	**11,708.3**	**1,172.6**	**10,535.7**	**885**

(*a*) Weighted by average unit values for the year 1979–80.

Publications

Two preliminary estimates of value of commodities produced are published: *Value of Agricultural Commodities Produced, Australia, First Estimates* (7501.0) and *Value of Agricultural Commodities Produced, Australia, Second Estimates* (7502.0). A final publication, *Value of Agricultural Commodities Produced, Australia* (7503.0), contains Indexes of Values at Constant Prices.

Index of Agricultural Commodities Produced

The index is consistent in scope with those of previous years. The indexes are weighted by the average unit values for the year 1979–80 with a reference base of 1979–80=1000.

For further details on how these and earlier series were calculated *see* Year Book No. 61, pages 1063–65 and *Value of Agricultural Commodities Produced, Australia* (7503.0).

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED

($m)

	1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84p*
Crops—						
Barley for grain	339.1	449.8	380.9	463.4	290.8	846.0
Oats for grain	100.5	98.8	139.5	155.7	116.1	249.2
Wheat for grain	2,295.8	2,478.0	1,684.1	2,599.4	1,566.2	3,408.4
Other cereal grains	222.3	218.9	327.6	294.1	260.4	361.9
Sugar cane cut for crushing	396.5	548.2	799.7	590.2	508.9	507.9
Fruit and nuts	387.7	406.6	459.8	464.4	498.0	543.0
Grapes	150.1	231.1	178.2	222.8	212.5	217.6
Vegetables	403.4	402.3	509.0	554.3	556.9	696.5
All other crops (*a*)	617.2	707.3	827.2	967.6	1,000.5	1,281.6
Total crops	*4,912.5*	*5,540.8*	*5,305.9*	*6,311.9*	*5,010.3*	*8,112.1*
Livestock slaughterings and other disposals (*b*)—						
Cattle and calves (*c*)	2,154.6	2,386.0	2,056.5	1,890.1	2,076.2	2,039.5
Sheep and lambs	445.1	654.3	718.9	646.7	548.0	561.9
Pigs	253.8	311.3	337.5	396.1	414.9	385.7
Poultry	244.2	307.2	361.4	362.7	413.1	404.2
Total livestock slaughterings and other disposals	*3,097.7*	*3,658.8*	*3,474.3*	*3,295.6*	*3,452.2*	*3,391.4*
Livestock products—						
Wool	1,374.5	1,651.4	1,669.5	1,788.7	1,760.9	2,003.0
Milk	627.7	676.0	(*d*) 885.1	(*d*) 1,033.9	1,186.5	(*d*)1,185.3
Eggs	196.9	216.1	(*d*) 227.4	(*d*) 253.4	275.3	(*d*)280.6
Total livestock products (e)	*2,214.5*	*2,564.3*	*2,803.8*	*3,100.6*	*3,245.8*	*3,493.3*
Total value of agricultural commodities produced	**10,224.7**	**11,763.9**	**11,584.1**	**12,708.2**	**11,708.3**	**14,997.0**

(*a*) Includes pastures and grasses. Excludes crops for green feed or silage. (*b*) Includes net exports of livestock. (*c*) Includes dairy cattle slaughtered. (*d*) Excludes the A.C.T. (*e*) Includes honey and beeswax.

INDEX OF VALUES AT CONSTANT PRICES OF AGRICULTURAL COMMODITIES PRODUCED (*a*)

(*Base year:* 1979 – 80 = 1000)

	1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Crops—						
Barley for grain	644	1082	1000	724	932	524
Oats for grain	702	1250	1000	799	1146	603
Wheat for grain	579	1127	1000	663	1017	545
Other cereal grains	821	1207	1000	1233	1417	975
Sugar cane (*b*)	1142	983	1000	1120	1162	1192
Fruit and nuts	851	1022	1000	1069	994	1017
Grapes	801	783	1000	825	984	963
Vegetables	913	998	1000	1011	1056	1044
All other crops (*c*)	753	991	1000	964	1106	931
Total	*728*	*1066*	*1000*	*838*	*1053*	*763*
Livestock slaughterings and other disposals—						
Cattle and calves (*d*)	1396	1290	1000	938	1005	986
Sheep and lambs	863	830	1000	1032	946	1018
Pigs	906	904	1000	1061	1038	1040
Poultry	785	866	1000	968	893	1000
Total (e)	*1206*	*1138*	*1000*	*968*	*988*	*998*
Livestock products—						
Wool	956	994	1000	990	1012	995
Milk	948	1031	1000	947	956	970
Eggs	1046	1017	1000	959	927	961
Total (f)	*959*	*1004*	*1000*	*974*	*990*	*985*
Total agricultural commodities produced	**928**	**1075**	**1000**	**909**	**1019**	**885**

(*a*) Indexes of values at constant prices (weighted by average unit values of the year 1979-80). (*b*) Sugar cane cut for crushing and planting. (*c*) Includes pastures and grasses. Excludes crops for green feed or silage. (*d*) Includes dairy cattle slaughtered. (*e*) Component series based on carcass weight. (*f*) Includes honey and beeswax.

Apparent consumption of foodstuffs and nutrients

Estimates of consumption in Australia are compiled by deducting net exports from the sum of production and imports and allowing for recorded movement in stocks of the respective commodities. The term 'consumption' is used in a specialised sense, since the quantities actually measured are broadly the quantities available for consumption at a particular level of distribution, i.e. ex-market, ex-store or ex-factory depending on the method of marketing and/or processing. Because consumption of foodstuffs is measured, in general, at 'producer' level no allowance is made for wastage before they are consumed. The effect of ignoring wastage is ultimately to overstate consumption but it is believed that more efficient distribution and storage methods in recent years have cut down wastage. Furthermore, it is likely that many of the foodstuffs are being supplemented by householders self-supplies over and above the broad estimate already made.

The estimates of consumption per capita have been derived by using Estimated Resident Population (ERP), which is compiled according to the place of usual residence of the population and includes an estimate for those persons temporarily overseas. Following intercensal revisions of ERP, data in the following two tables have been extensively revised.

More detailed information on the consumption of foodstuffs is contained in the publication *Apparent Consumption of Foodstuffs and Nutrients, Australia* (4306.0). For some commodities, more timely information is contained in the publication *Apparent Consumption of Selected Foodstuffs, Australia (Preliminary)* (4315.0).

APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS

(Kg—unless otherwise indicated)

Commodity	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84p*
Meat and meat products—						
Beef and veal	*58.2*	*47.3*	*46.9*	*50.7*	*46.5*	*40.9*
Beef	54.8	44.9	44.5	48.2	43.1	38.7
Veal	3.3	2.4	2.4	2.5	3.4	2.2
Lamb	14.1	15.5	15.8	16.3	16.2	16.1
Mutton	4.3	4.7	4.9	3.7	4.6	4.3
Pigmeat (*a*)	13.4	14.0	15.6	14.9	15.1	16.3
Total	*89.9*	*81.6*	*83.2*	*85.5*	*82.3*	*77.5*
Offal and meat, n.e.i.	5.1	4.0	4.3	4.5	4.5	4.3
Total meat (converted to carcass equivalent weight)	**95.0**	**85.6**	**87.7**	**90.0**	**86.8**	**81.8**
Poultry—						
Poultry (dressed weight)	18.8	20.2	20.3	19.6	20.4	19.3
Seafood—						
Fresh and frozen (edible weight)—						
Fish—						
Australian	1.7	1.4	1.8	1.6	1.2	n.y.a.
Imported	1.5	1.9	2.1	1.4	1.8	n.y.a.
Crustacea and molluscs	0.8	0.5	1.0	0.9	1.0	n.y.a.
Seafood otherwise prepared (product weight)—						
Australian	0.6	0.5	0.4	0.4	0.6	n.y.a.
Imported—						
Fish	1.6	1.9	1.8	1.9	1.5	n.y.a.
Crustacea and molluscs	0.3	0.3	0.4	0.5	0.4	n.y.a.
Total seafood	**6.6**	**6.6**	**7.5**	**6.7**	**6.6**	**n.y.a.**
Milk and Milk Products—						
Market milk (fluid whole) (b) (litres)	100.6	103.4	104.0	103.1	102.9	102.3
Condensed, concentrated and evaporated milk—						
Full cream sweetened	0.7	0.7	0.9	0.6	0.9	n.y.a.
Full cream unsweetened	2.5	2.2	2.7	2.5	1.6	n.y.a.
Skim	1.6	1.4	1.0	1.2	0.8	n.y.a.
Powdered milk—						
Full cream	0.9	0.8	0.9	0.9	0.8	n.y.a.
Skim	3.2	3.7	3.2	2.8	2.7	n.y.a.
Infants' and invalids' food	1.1	1.1	1.0	1.3	1.2	n.y.a.
Cheese (natural equivalent weight)	6.0	6.6	6.6	7.0	7.4	7.7
Total (converted to milk solids, fat and non-fat)	**22.5**	**23.5**	**23.1**	**23.0**	**22.8**	**n.y.a.**
Fruit and Fruit Products—						
Fresh fruit (incl. fruit for fruit juice)—						
Citrus	35.5	40.2	41.4	39.1	42.6	n.y.a.
Other	34.4	39.3	35.8	38.8	38.8	n.y.a.
Jams, conserves, etc	2.3	1.5	1.5	1.8	1.8	n.y.a.
Dried fruit	2.1	2.5	2.2	2.3	2.4	n.y.a.
Processed fruit	10.5	12.4	11.7	10.9	9.5	n.y.a.
Total (fresh fruit equivalent)	**93.0**	**106.1**	**102.2**	**102.4**	**104.4**	**n.y.a.**
Vegetables—						
White potatoes	51.5	54.9	54.9	57.6	52.3	n.y.a.
Other root and bulb vegetables	17.2	17.3	17.5	18.7	16.9	n.y.a.
Tomatoes	13.5	14.6	15.7	16.7	16.4	n.y.a.
Leafy and green vegetables	27.5	25.1	22.3	20.8	21.3	n.y.a.
Other vegetables	19.5	17.6	17.5	17.2	18.1	n.y.a.
Total (fresh equivalent weight)	**129.2**	**129.5**	**127.8**	**130.9**	**125.0**	**n.y.a.**
Grain Products—						
Flour (c)	69.7	70.5	70.7	72.0	67.1	n.y.a.
Breakfast foods—						
Oatmeal and rolled oats	0.9	0.3	0.8	0.9	1.2	n.y.a.
Other (from grain)	7.4	6.9	6.9	7.1	7.6	n.y.a.
Total breakfast foods	*8.3*	*7.2*	*7.8*	*8.0*	*8.7*	*n.y.a.*
Table rice	2.5	2.5	2.9	2.9	3.0	n.y.a.
Total grain products	**80.5**	**80.2**	**81.3**	**82.9**	**78.8**	**n.y.a.**

For footnotes *see* end of table.

APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS—*continued*

(Kg—unless otherwise indicated)

Commodity	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84p*
Bread	46.8	48.0	46.1	47.5	48.4	n.y.a.
Eggs and Egg Products—						
Total (eggs in shell weight)	12.5	12.5	12.4	12.5	12.5	n.y.a.
Equivalent number of eggs	221	220	220	222	221	n.y.a.
Nuts (in shell)—						
Peanuts	1.6	1.3	1.5	1.5	2.1	n.y.a.
Tree nuts	2.6	2.9	3.2	3.3	3.3	n.y.a.
Oils and fats—						
Butter	4.5	4.6	4.3	4.3	4.0	4.0
Total margarine	*8.8*	*8.9*	*9.2*	*9.5*	*9.6*	*9.6*
Table margarine	5.9	6.4	6.7	6.8	6.8	6.9
Other margarine	2.9	2.4	2.5	2.7	2.8	2.7
Total (fat content)(d)	**21.4**	**21.5**	**21.5**	**21.8**	**21.6**	**21.7**
Sugar—						
As refined sugar	14.1	12.8	13.7	12.5	12.0	n.y.a.
In manufactured foods	35.1	34.6	35.0	34.8	33.5	n.y.a.
Total	*49.2*	*47.4*	*48.7*	*47.2*	*45.5*	*n.y.a.*
Honey	0.8	0.9	0.6	0.9	0.8	n.y.a.
Total(e)	**53.1**	**51.6**	**52.7**	**51.4**	**49.1**	**n.y.a.**
Beverages—						
Tea	1.7	1.6	1.5	1.6	1.4	1.5
Coffee(f)	1.7	1.7	1.9	1.9	2.0	2.1
Aerated and carbonated waters (litres)	66.1	63.9	67.6	64.2	65.7	63.4
Beer (litres)	130.8	132.3	129.3	128.6	121.6	118.5
Wine (litres)	16.4	17.3	18.2	19.1	19.7	20.5
Spirits (litres alcohol)	1.1	1.0	1.1	1.2	1.2	1.1

(*a*) Includes bacon and ham. (*b*) Prior to 1978-79 was known as Fluid Whole Milk. (*c*) Includes flour used for breadmaking. (*d*) Includes an estimate for vegetable oils and other fats. (*e*) Includes sugar content of syrups and glucose. (*f*) Coffee and coffee products in terms of roasted coffee.

Nutrients

The nutrients table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for per capita consumption.

For further information on the level of nutrient intake *see* the publication *Apparent Consumption of Foodstuffs and Nutrients, Australia* (4306.0).

ESTIMATED SUPPLY OF NUTRIENTS AVAILABLE FOR CONSUMPTION(*a*)

(Per capita per day)

Nutrient	*Unit*	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Protein—							
Animal	g	69.9	66.6	64.4	65.2	65.4	64.4
Vegetable	g	31.5	32.3	32.3	32.7	33.3	32.1
Total	*g*	*101.4*	*98.7*	*96.7*	*98.0*	*98.7*	*96.5*
Fat (from all sources)	g	151.9	145.2	142.4	145.6	147.3	145.0
Carbohydrate	g	389.7	395.3	396.1	400.6	400.8	384.9
Calcium	mg	891	899	932	924	920	908
Iron	mg	15.6	15.2	14.6	14.8	15.1	14.8
Vitamin A activity	µg	1,640	1,552	1,441	1,501	1,522	1,503
Vitamin C (*b*)—							
Unadjusted	mg	101.4	105.5	109.0	109.1	108.3	109.7
Adjusted	mg	72.9	77.2	80.5	81.3	80.1	82.9
Thiamin (*b*)—							
Unadjusted	mg	1.7	1.8	1.7	1.8	1.8	1.8
Adjusted	mg	1.5	1.5	1.5	1.5	1.5	1.5
Riboflavin	mg	2.8	2.7	2.6	2.6	2.7	2.6
Niacin (*b*)—							
Unadjusted	mg	24.0	23.0	22.1	22.4	22.7	22.7
Adjusted	mg	40.8	39.4	38.2	38.7	39.1	38.8
Energy value	kJ	14,501	14,312	14,163	14,385	14,478	14,088

(*a*) Figures are based on conversion factors calculated from the revised and enlarged edition of S. Thomas and M. Corden *Metric Tables of Composition of Australian Food*, Canberra, 1977. (*b*) Data for vitamin C, Thiamin and Niacin show adjustments made for loss of nutrients in cooking and the extra niacin obtained from the metabolism of protein.

Land tenures

Land tenure statistics, in the main, relate to land held under freehold tenure ('alienated or in process of alienation') or leasehold tenure ('leased or licenced') with all agricultural establishments falling within these categories. Descriptions of the land tenure systems of the States and the Territories, and conspectuses of land legislation in force were provided in Year Book No. 48 and previous issues (*see also* Year Book No. 50, page 85.).

Disposal of crown lands

For a description of the provisions that exist in all mainland States for the disposal of crown lands for public purposes, for unconditional purchase and occupation under lease or licence, *see* Year Book No. 61, page 742.

Closer settlement and war service settlement

Particulars of these are given in issues of the Year Book up to No. 22, and in Year Book Nos. 48, 55 and 61.

Alienation and occupation of crown lands

For data relating to Land Tenures, in the States and Territories, *see* Year Book No. 66, page 285 and Year Book No. 67, page 321.

Land utilisation in Australia

The total area under tenure differs from the total area of agricultural establishments (shown below) by amounts which represent unused land or land held for non-agricultural purposes. In general, land in the more fertile regions tends to be mostly freehold, while the less productive land is held under Crown lease or licence.

AREA OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY

(Million hectares)

At 31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust. (incl. A.C.T.)*
1979 . . .	65.1	14.4	156.3	62.7	116.2	2.2	76.2	493.2
1980 . . .	65.0	14.7	157.7	62.8	114.9	2.2	78.2	495.6
1981 . . .	65.2	14.7	157.5	62.4	115.8	2.2	77.6	495.4
1982 . . .	63.4	14.4	157.1	62.9	113.5	2.2	77.1	490.8
1983 . . .	64.0	14.2	155.9	60.2	112.0	2.2	75.2	483.8
1984p . . .	63.5	14.1	155.5	60.0	114.3	2.2	70.5	480.0

LAND UTILISATION: AUSTRALIA

(Million hectares)

	Area of			*Total*	
Year	*crops(a) (b)*	*sown pastures and grasses (b)*	*Balance (c)*	*Area of establishments*	*Percentage of Australian land area (768,284,000 hectares)*
1978–79	17.4	27.7	448.0	493.2	64.2
1979–80	18.0	27.1	450.6	495.6	64.5
1980–81	18.3	24.9	452.3	495.4	64.5
1981–82	19.6	26.9	444.2	490.8	63.9
1982–83	19.4	25.6	438.8	483.8	63.0
1983–84	21.9	25.8	432.3	480.0	62.5

(*a*) Excludes pastures and grasses harvested for hay and seed which have been included in 'sown pastures and grasses'.
(*b*) Prior to 1981-82 figures related to area 'used for' crop or pasture, i.e., an area used for more than one purpose during the year was counted only once. From 1981-82, an area double cropped or an area of pasture also planted to crop has been counted separately each time used.
(*c*) Used for grazing, lying idle, fallow, etc.

The total area of agricultural establishments in 1983–84 constituted 62.5 per cent of the Australian land area, the remainder being urban areas, State forests and mining leases, with an overwhelming proportion of unoccupied land (mainly desert). The balance data includes large areas of arid or rugged land held under grazing licences but not always used for grazing. Balance data also includes variable amounts of fallow land.

The crop area data represent up to 4.0 per cent of the area of agricultural establishments and emphasises the relative importance of the livestock industry in Australia—sheep in the warm, temperate, semi-arid lands and beef cattle in the tropics. The agricultural labour force (*see* page 303) is used on large areas of land with low carrying capacity.

Crops

For this section, statistics relating to crop areas and production have been obtained from the annual Agricultural Census. The census returns are collected in all States and the two Territories at 31 March each year and relate mainly to crops sown in the previous twelve months.

Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a supplementary collection after the harvest is completed. Additional statistics relating to value of agricultural commodities produced, manufactured production and overseas trade are also included. Agricultural Census data published in this section refer to the 'agricultural' year ended 31 March, while other data refer to the year ended 30 June; but for most purposes there will be little error involved in considering 'agricultural year' data as applying to the financial year.

The following table shows the area of crops in each of the States and Territories of Australia since 1860–61.

AREA OF CROPS(*a*): 1860–61 TO 1983–84

('000 hectares)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1860–61 . . .	100	157	2	145	10	62	–	–	475
1870–71 . . .	156	280	21	325	22	64	–	–	868
1880–81 . . .	245	627	46	846	26	57	–	–	1,846
1890–91 . . .	345	822	91	847	28	64	–	–	2,197
1900–01 . . .	990	1,260	185	959	81	91	–	–	3,567
1910–11 . . .	1,370	1,599	270	1,112	346	116	–	–	4,813
1920–21 . . .	1,807	1,817	316	1,308	730	120	–	1	6,099
1930–31 . . .	2,756	2,718	463	2,196	1,939	108	1	2	10,184
1940–41 . . .	2,580	1,808	702	1,722	1,630	103	–	2	8,546
1949–50 . . .	2,295	1,881	832	1,518	1,780	114	–	4	8,424
1954–55 . . .	2,183	1,904	1,049	1,711	2,069	122	–	2	9,040
1959–60 . . .	2,888	1,949	1,184	1,780	2,628	130	1	3	10,564
1964–65 . . .	4,182	2,621	1,605	2,414	3,037	163	2	4	14,028
1968–69 . . .	5,509	2,529	2,071	2,596	3,839	110	6	3	16,665
1969–70 . . .	4,999	2,212	2,208	2,290	3,912	98	6	2	15,728
1970–71 . . .	3,967	1,732	1,791	1,998	3,826	80	2	1	13,397
1971–72 . . .	4,186	1,925	2,017	2,278	3,751	67	7	1	14,231
1972–73 . . .	4,329	1,943	1,963	2,122	3,814	80	12	1	14,265
1973–74 . . .	4,628	1,981	1,786	2,451	4,133	74	6	1	15,060
1974–75 . . .	4,089	1,772	1,898	2,257	3,754	67	7	1	13,845
1975–76 . . .	4,285	1,851	2,010	2,116	4,208	60	8	1	14,539
1976–77 . . .	4,520	1,943	2,026	2,036	4,417	65	2	1	15,010
1977–78 . . .	4,984	2,163	2,107	2,564	4,910	70	1	1	16,800
1978–79 . . .	5,020	2,209	2,307	2,827	4,993	80	2	1	17,438
1979–80 . . .	5,243	2,243	2,334	2,771	5,281	79	2	1	17,954
1980–81 . . .	5,208	2,180	2,481	2,772	5,547	84	1	1	18,273
1981–82 . . .	5,744	2,184	2,765	2,865	5,963	90	2	1	19,613
1982–83 . . .	5,200	2,234	2,648	2,856	6,379	98	3	1	19,419
1983–84p . .	6,534	2,643	3,065	3,075	6,492	95	4	2	21,910

(*a*) The classification of crops was revised in 1971–72 and adjustments made to statistics back to 1967–68. After 1966–67 lucerne for green feed, hay and seed, and pasture cut for hay and harvested for seed or green feed are excluded.

NOTE: From 1970–71 to 1980–81 figures related to area 'used for' crops, ie, an area used for more than one purpose during the year was counted only once. From 1981–82, an area double cropped has been counted separately each time used.

The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the country. Generally, cereal crops (excluding rice, maize and sorghum) are grown in all States over wide areas, while other crops are confined to specific locations in a few States. However, scanty or erratic rainfall, limited potential for irrigation and unsuitable soils or topography have restricted intensive agriculture. Despite this, agricultural production has increased over time to meet increased demands both in Australia and from overseas.

The following table provides an Australian summary of the area, production and gross value of the principal crops.

CROPS: AREA, PRODUCTION AND GROSS VALUE

	1981-82			*1982-83*			*1983-84*		
	Area ('000 ha)	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*
Cereals for grain—									
Barley	2,685	3,450	464	2,452	1,939	291	3,163	4,937	846
Grain sorghum	649	1,317	140	707	958	124	738	n.y.a.	208
Maize	61	212	30	64	139	23	63	n.y.a.	n.y.a.
Oats	1,388	1,617	156	1,212	848	116	1,743	2,270	249
Rice	123	854	104	85	548	88	113	635	n.y.a.
Wheat	11,885	16,360	2,599	11,520	8,876	1,566	12,909	22,064	3.408
Legumes for grain	267	261	44	407	238	40	502	n.y.a.	137
Crops for hay—									
Oats	275	788	59	273	645	73	275	961	n.y.a.
Wheat	79	201	14	106	202	22	77	215	n.y.a.
Crops for green feed, silage—									
Barley	59	n.a.	n.a.	117	n.a.	n.a.	61	n.a.	n.a.
Forage sorghum	77			112			74		
Oats	628			723			618		
Wheat	32			130			31		
Sugar cane cut for crushing	316	25,094	590	318	24,817	509	307	24,263	508
Tobacco	7	13	59	7	13	62	7	n.y.a.	68
Cotton	92	325	182	96	286	168	106	n.y.a.	267
Peanuts	33	58	37	36	23	18	33	n.y.a.	n.y.a.
Linseed	7	6	2	5	2	1	6	5	n.y.a.
Rapeseed	16	15	3	12	7	2	18	16	n.y.a.
Safflower	33	20	5	12	5	2	50	33	n.y.a.
Sunflower	178	115	28	176	104	27	201	n.y.a	n.y.a.
Fruit (excl. grapes)	102	–	464	104	–	498	108	–	409
Fruit—									
Orchard	85	–	365	87	–	385	89	–	n.y.a.
Oranges	n.a.	376	90	n.a.	410	101	n.a.	381	n.y.a.
Apples		294	124		301	132		n.y.a.	134
Pears		110	31		119	31		n.y.a.	n.y.a.
Peaches		65	23		63	21		53	n.y.a.
Bananas	9	130	61	9	140	70	9	163	n.y.a.
Pineapples	6	126	21	6	111	25	6	121	n.y.a.
Grapes	68	885	223	66	768	213	65	856	218
Vegetables	107	–	554	110	–	557	109	–	423
Potatoes	36	919	181	37	858	169	32	n.y.a.	273
Total, all crops (excluding pastures)	**19,613**	**–**	**5,998**	**19,420**	**–**	**4,694**	**21,910**	**–**	**n.y.a.**

In the tables that follow, crop statistics are shown in these groupings: wheat, coarse grains, rice, oilseeds, sugar, vegetables, fruit, grapes and other crops such as tobacco, mushrooms and fodder crops.

Cereal grains

In Australia, cereals are conveniently divided into autumn-winter-spring growing ('winter' cereals) and spring-summer-autumn growing ('summer' cereals). Winter cereals such as wheat, oats, barley and rye are usually grown in rotation with some form of pasture such as grass, subterranean clover, medics or lucerne. In recent years, alternative winter crops such as rapeseed, field peas and lupins have been introduced into cereal rotation in areas where they had not previously been grown. Rice, maize, sorghum and the millets are summer cereals with the latter two being grown in association with winter cereals in some areas. In Northern Queensland and Western Australia there are two rice growing seasons—a dry season winter crop and a wet season summer crop.

Cereals for grain form a significant percentage of both the value of Australia's agricultural commodities and of the country's export earnings. The following table shows the significance of cereal grains in the last 6 years.

CEREAL GRAINS IN AUSTRALIA: A PERSPECTIVE

	Cereal grains(a)					
Year	*Gross value*	*Export value f.o.b.*	*Total agriculture gross value*	*Total Australian exports—all produce value f.o.b.*	*Gross value of cereal grains as a percentage of gross value of agriculture*	*Export value of cereal grains as a percentage of total Australian exports*
	$m	$m	$m	$m	per cent	per cent
1978–79	2,957.6	1,082.0	10,225	14,247	28.9	7.6
1979–80	3,245.4	2,764.7	11,764	18,870	27.6	14.7
1980–81	2,532.0	2,160.6	11,610	19,169	21.8	11.3
1981–82	3,512.6	2,367.9	12,708	19,581	27.6	12.1
1982–83	2,233.6	1,669.7	11,708	22,060	19.1	7.6
1983–84p	4,865.5	2,573.1	14,997	24,805	32.4	10.4

(*a*) Principally wheat, barley, oats, grain sorghum, rice and maize, with panicum/millet, canary seed and rye being minor cereals.

For more up-to-date and detailed information on cereals for grain *see* the following publications: *Agricultural Industries: Structure of Operating Units, Australia* (7102.0); *Agricultural Land Use and Selected Inputs, Australia* (7411.0); *Principal Agricultural Commodities, Australia (Preliminary)* (7111.0); *Selected Agricultural Commodities, Australia (Preliminary)* (7112.0); *Crops and Pastures, Australia* (7321.0); *Cereal Grains: Estimates of Area Sown, Australia* (7312.0); *Value of Agricultural Commodities Produced: Australia, First Estimates* (7501.0); *Value of Agricultural Commodities Produced: Australia, Second Estimates* (7502.0); *Value of Agricultural Commodities Produced, Australia* (7503.0).

Wheat

Wheat is grown in all States except the Northern Territory, and is the most important crop in Australia in terms of area, production and value of exports. Factors which have contributed to the development of the industry are the increasing demand from and the organisation of overseas markets as well as research and the availability of suitable cropping land. As a large proportion of the wheat crop is exported, wheat marketing arrangements play an important role. The first Australian Wheat Board was constituted in September 1939, under *National Security* (*Wheat Acquisition*) *Regulations*, to purchase, sell or dispose of wheat or wheat products and to manage or control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired and such other matters as were necessary to give effect to the regulations. The major purpose in founding the Australian Wheat Board with responsibility for acquiring and marketing the Australian wheat crop was the protection of wheat farmers by lowering financial risks on each crop. The strength of the Australian Wheat Board is derived from its ability to act as the single Australian authority responsible for marketing of wheat domestically and abroad and to use that function as a basis for careful co-ordination of sales efforts and market development. The *Wheat Industry Stabilization Act 1948* established the present Australian Wheat Board to administer the first stabilisation plan, the concept of which was to provide growers with a 'guaranteed price' for a specific quantity of export wheat. Until 1978 there were six Stabilisation Plans. The *Wheat Marketing Act 1979* replaced the stabilisation plans with a guaranteed minimum price scheme, applicable to an unlimited quantity of wheat. Amendments to this legislation in 1982 and 1983 gave the Board additional powers in financial matters, including the ability to operate on futures markets.

Wheat marketing and pricing arrangements 1984-85 to 1988-89. On 28 October 1984 the *Wheat Marketing Act 1984* received Royal Assent and new wheat marketing and pricing arrangements became operative for the period ending 30 June 1989. The basic elements of the new arrangements were negotiated between the Australian Wheatgrowers' Federation and Commonwealth and State Governments. The enactment of State legislation complementary to the Commonwealth legislation is necessary for the implementation of a national scheme.

The new wheat marketing and pricing provisions contain most features of the previous scheme, the most important of which are: the Australian Wheat Board continues to be the sole statutory authority responsible for the marketing of wheat in Australia and overseas; the general powers of the Board remain largely unchanged; the legislation applies to a seven-year period, except for the pricing provisions, which run for five years (approximately); and the concept of a guaranteed minimum price is retained.

The following are important features in the current plan.

Guaranteed Minimum Price. Under the 1984 Act, the Commonwealth Government continues to underwrite 95% of wheat returns on a net basis through a Guaranteed Minimum Price (GMP) for Australian Standard White (ASW) wheat, although the method of calculating and the timing of payment of the GMP has been changed. The ASW GMP is to be set at 95% of the average of the estimated return per tonne for ASW wheat from the subject season and the lowest two of the previous three seasons less the estimated pool costs per tonne for the subject season. There is provision in the Act for separate GMPs to be established for specified categories other than ASW, based on the expected market value of the wheat in those categories relative to ASW.

Growers will receive a split first advance payment. Upon delivery of his wheat, a grower will be paid 90% of the estimated GMP for the relevant category (i.e. 90% of the relevant preliminary GMP) less contributions to research (wheat tax), dockages for non-preferred varieties and for defects (if any), and allowances for storage, handling and transportation charges. When the final GMP has been determined (before 1 March during the subject season), the grower will receive the final GMP, increased or decreased by an allowance for the quality of his wheat (in addition to the deductions made at the time of delivery), less the interim advance payment he has received. Initial allowances may be adjusted by the Board at a later date to reflect actual costs and returns. If the net return per tonne exceeds the GMP, the excess will be returned to growers by way of a final payment, which may be made by instalments over a number of years.

These arrangements provide the industry with support from the Government that is designed to help it overcome any short-run down-turn in producers' returns, modified by longer-run adjustments in market returns whether these adjustments be for a rising or a falling market. To date, it has not been necessary for the Government to meet any deficiency between the net pool return rate and the GMP.

For the 1984-85 season, the preliminary GMP is $145.64 per tonne for ASW wheat. Four additional categories have been specified with preliminary guaranteed minimum prices ranging from $100.46 to $160.64.

Financial Arrangements. Prior to the 1978-79 season, the Board's borrowing was limited to Reserve Bank of Australia Rural Credits Department borrowings. In that season approval was granted for partial borrowings on the domestic money market. In 1981-82 and 1982-83 funding was moved exclusively to the Domestic Money Market. For 1983-84 and subsequent seasons the Loan Council approved the AWB borrowing up to 50% of its prospective net borrowing requirement overseas, and up to 50% on the Domestic Money Market. For the 1984-85 season the Board has approval to borrow up to $A2,621,000.00 split between offshore and domestic facilities.

The Wheat Finance Fund, a $100 million revolving funds of growers' monies, is to be wound up under the 1984 Act. Existing contributions, plus accumulated interest, will be repaid during 1985.

Domestic Pricing. The arrangements for the pricing of wheat sold on the domestic market recognise the different segments of the market, namely, the use of wheat for milling into flour for human consumption and the use of wheat for stockfeed and for industrial purposes.

The 1983–84 season price for Australian Standard White wheat for human consumption sold domestically is $219.41. This amount includes a $4.57 per tonne component as the Tasmanian freight levy (see later). The 1984 Act has changed the method of setting the domestic price for human consumption wheat. The price will now be determined each quarter by averaging the export prices for the forward and past quarters and adding a margin to cover the additional costs of servicing the domestic market. The price for October-December 1984 quarter has fallen to $195.25 per tonne, including $1.40 per tonne Tasmanian freight levy, primarily as a result of legislative changes. Tasmanian freight levy now applies to all domestic wheat sales. It is used exclusively to cover the cost of shipping wheat from the mainland to Tasmania each season.

The domestic prices for industrial and stockfeed wheats are quoted by the Board in the light of its commercial judgment and having regard to orderly marketing considerations. Prices are quoted by the Board each day and buyers may enter into contracts to fix the price of wheat for delivery up to six months in advance.

Domestic Marketing Arrangements. The Australian Wheat Board exercises sole authority for the marketing of wheat domestically and overseas. The Board also has the power to import wheat. The Board is also authorised to issue permits to enable wheatgrowers to deliver their wheat, subject to certain conditions, other than to an authorised receiver of the Board. It is permitted to issue permits to growers:

(i) to sell seed wheat;
(ii) to sell inferior quality wheat which is unacceptable for receival by the Board;
(iii) to deliver wheat from a property on which it is grown to another farm under the same or joint ownership for use on the latter;

(iv) to deliver wheat to a miller for gristing and return the produce of the gristing to the farm on which it was grown for use on that farm; or

(v) to sell wheat on behalf of the Board under grower-to-buyer direct delivery transactions authorised by the Board. The grower and buyer negotiate the sale price, which may be at a premium or a discount to the Board's domestic ASW price applicable for the same end use. The proceeds of sale are incorporated in the Board's pooling arrangements. The grower receives payment from the Board as if he had delivered ASW wheat, adjusted by the abovementioned discount or premium and a reduction in the relevant bulkhandling authority's charge.

Under the 1984 Act, the Board is also empowered to issue permits to stockfeed buyers to purchase wheat direct from growers for stockfeed use. The availability of these permits will be governed by guidelines issued by the Federal Minister for Primary Industry and the relevant State Ministers. Wheat sold pursuant to a stockfeed purchase permit will be subject to a deduction to cover wheat research tax, Tasmanian freight, the Board's administration costs and a reduced bulk handling authority charge. No pooling or GMP provisions or minimum or maximum prices apply in respect of such wheat.

Wheat which is retained by a grower on the farm on which it is grown, for use on that farm, does not come under the control of the Board.

Overseas Marketing Arrangements. The 1984 Act extends the powers of the Board in relation to overseas marketing to enable it to enter into tripartite barter arrangements and the sale and shipment of other grains in combination with wheat.

Wheat varieties and standards of wheat

The practice of breeding wheat suitable to local conditions has long been established in Australia. William Farrer (1845–1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties with higher yields and improved quality which, when combined with a greater uniformity of sample, have created certain marketing advantages for Australia's wheat crop. The continuation of wheat breeding activities has led to expansions in the areas sown to wheat as well as in yields per hectare, but it is difficult to distinguish progress due to improved wheat varieties from that due to crop/pasture rotations, increased mechanisation and superphosphate-improved pastures.

Wheat quality is a complex subject but can be broadly described in terms of four parameters; grain hardness, protein content, milling performance and physical dough properties. These parameters are governed by a combination of the wheat variety and the environmental conditions under which the wheat is grown.

Australia produces only white grained wheats. This is in contrast to our major competitors who predominantly produce red-grained wheats. Within the Australian wheatbelt there exist wide ranges of soil fertility, rainfall, daylength and temperature. Through the development of varieties which complement these diverse growing conditions, it has been possible to produce wheats with qualities that are suitable to virtually all commercial applications.

Australian wheats may be classified into two broad types, namely the milling and non-milling Classes. Since 1974 there have been five Classes of Australian wheats suitable for milling purposes:

Australian Prime Hard
Australian Hard
Australian Standard White (ASW)
Australian Soft
Australian Durum

There exists within each Class a number of individual grades. In some seasons a total in excess of 30 different grades of Australian wheat have been marketed. This large number has developed to meet individual customer requirements and also to reflect the wide range of wheat types available from Australia. Prior to 1974 the majority of the Australian wheatcrop was marked under the single classification Fair Average Quality (F.A.Q.). Particulars of Australian wheat standards may be found in *Crops and Pastures, Australia* (7321.0).

Central Grain Research Laboratory

In 1976, the Australian Wheat Board established this laboratory in Sydney as an addition to the facilities of the Bread Research Institute of Australia. The main functions of the laboratory are to test and report on the Australian crop, to analyse and compare competitor wheats from other countries and to develop research programs to aid the marketing of wheat.

WHEAT: AREA, PRODUCTION AND RECEIVALS

Season	*Area*		*Production*		*Australian Wheat Board receivals(a)*
	For grain	*All purposes*	*Grain*	*Gross value*	
	'000 ha	'000 ha	'000 tonnes	$m	'000 tonnes
1978–79	10,249	10,321	18,090	2,295.8	17,457
1979–80	11,153	11,249	16,188	2,478.0	15,328
1980–81	11,283	11,436	10,856	1,684.1	10,059
1981–82	11,885	11,995	16,360	2,599.4	15,545
1982–83	11,520	11,755	8,876	1,566.2	(*b*)7,927
1983–84p	12,909	13,017	22,064	3,408.4	21,033

(*a*) Australian Wheat Board receivals are for the season commencing 1 October; production data are for the year ending 31 March.
(*b*) Receivals to 30 September 1984.

WHEAT FOR GRAIN: AREA AND PRODUCTION, BY STATE

Season	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Australia*
AREA ('000 hectares)							
1978–79	3,162	1,337	747	1,295	3,706	1	10,249
1979–80	3,415	1,457	733	1,424	4,121	2	11,153
1980–81	3,345	1,431	727	1,445	4,333	2	11,283
1981–82	3,600	1,322	941	1,427	4,593	1	11,885
1982–83	3,162	1,327	767	1,398	4,865	1	11,520
1983–84p	4,000	1,609	1,053	1,527	4,718	1	12,909
PRODUCTION ('000 tonnes)							
1978–79	6,640	2,998	1,962	2,086	4,400	3	18,090
1979–80	6,000	3,250	846	2,349	3,739	4	16,188
1980–81	2,865	2,538	485	1,650	3,315	3	10,856
1981–82	5,910	2,467	1,482	1,695	4,803	2	16,360
1982–83	1,499	394	754	692	5,534	1	8,876
1983–84p	8,966	3,989	1,950	2,839	4,316	3	22,064

PRODUCTION AND DISPOSAL OF WHEAT FOR GRAIN
('000 tonnes)

Season	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Production	9,370	18,090	16,188	10,856	16,360	8,876
Less balance held on farms for—						
Seed usage	618	633	860	797	815	949
Feed and other uses	212					
Gross receivals	8,540	17,457	15,328	10,059	15,545	7,927
Opening stocks(*a*)	2,071	816	4,646	4,268	2,044	4,879
Total availability for sale	10,611	18,273	19,974	14,327	17,589	12,806
Export shipments—						
Wheat	7,918	11,526	13,049	9,451	10,890	7,157
Flour and wheat products(*a*)	180	167	148	163	178	123
Domestic sales—						
Flour(*a*)	1,259	1,298	1,371	1,402	954	3,117
Stockfeed	438	621	1,068	1,179	563	
Breakfast foods etc. (*a*)	43	41	45	49	58	
Total disposal	9,838	13,653	15,681	12,244	12,643	10,397
Availability (—) Disposals	773	4,620	4,293	2,083	4,946	2,409
Closing stocks(*a*)	816	4,646	4,268	2,044	4,879	2,409
Apparent wastage	–43	–26	25	39	67	. .

(*a*) Wheat and flour in terms of wheat.
NOTE: The Australian Wheat Board is the source of receivals, export shipments, domestic sales data, and opening and closing stocks; the ABS records other data.

Wheat pools

Details of wheat receivals by State of origin for the several Pools together with Pool payments and times of payment will be found in the latest issue of *Crops and Pastures, Australia* (7321.0).

International Wheat Agreement

A number of Agreements have operated since 1949 to provide a valuable framework for continuing international consultation and co-operation on world wheat matters, including the regular monitoring of the world wheat situation. The 1971 International Wheat Agreement (the first expiring on 30 June 1974) has been extended seven times by protocol, the most recent extension expiring on 30 June 1986. It comprises two separate legal instruments, the Wheat Trade Convention and the Food Aid Convention, linked by a common preamble. Negotiations towards a new Agreement were held in January 1978 and January–February 1979 under the auspices of the U.N. Conference on Trade and Development (UNCTAD). No consensus was reached on an Agreement with economic provisions designed to bring about a measure of price stability by the accumulation and release of internationally co-ordinated nationally-held reserve stocks. The 1979 conference was adjourned indefinitely. Subsequently, in 1980 and 1981, the International Wheat Council considered other possible bases for an Agreement with its attention focussing on a more flexible approach to stockholding with reserve stock action being taken on the basis of a consensus within the Council rather than applying automatically at a particular time as a result of price movements. With strong opposition of the U.S. Administration to the international co-ordination of holding of wheat, this approach proved not negotiable. However, the Council agreed, in December 1981, on immediate steps to strengthen the operation of the existing Agreement. The Council also decided that it was imperative to continue the search for an agreed basis for a new Agreement, keeping in view the paramount objectives of market stability and food security. At the 1984 session some members of the International Wheat Council re-emphasised the need for the council to vigorously pursue efforts towards the conclusion of a new agreement with appropriate provisions to meet the aspirations of developing countries. While there has been no progress on a basis for a new Agreement, the current Agreement has been extended to 1986.

EXPORTS OF WHEAT AND FLOUR

	Quantity ('000 tonnes)			*Value f.o.b. ($m)*		
Country of consignment	*1981–82*	*1982–83*	*1983–84p*	*1981–82*	*1982–83*	*1983–84p*
			WHEAT			
Bangladesh	124.2	50.0	427.7	19.2	7.6	67.6
China—excl. Taiwan Province	1,361.0	1,210.0	1,486.0	212.0	182.0	244.9
Egypt, Arab Republic of	1,575.2	1,852.8	1,708.3	246.9	303.6	303.2
India	782.9	—	—	123.2	—	—
Indonesia	480.3	168.8	488.3	75.5	28.6	89.1
Iran	544.3	847.9	—	83.8	136.0	—
Iraq	750.5	443.8	832.1	119.8	77.8	150.7
Japan	995.1	1,000.0	999.1	156.4	167.7	179.6
Kuwait	228.6	238.6	174.6	33.9	41.0	29.9
Malaysia	294.2	160.5	152.0	44.4	26.7	26.7
Saudi Arabia	122.2	166.3	96.3	21.5	28.9	17.7
Singapore	50.7	103.6	408.9	7.6	17.1	72.9
Sri Lanka	129.8	31.0	49.7	20.8	5.4	8.6
U.S.S.R.	2,408.0	1,017.6	1,554.7	386.0	196.3	256.5
Yemen Arab Republic	332.0	119.3	19.9	51.2	18.6	3.4
Other countries	733.4	611.8	2,194.5	117.5	105.8	371.2
Total	**10,912.4**	**8,022.0**	**10,592.1**	**1,719.7**	**1,343.1**	**1,822.0**
			FLOUR(*a*)			
Kenya	—	14.9	—	—	4.2	—
Mauritius	21.2	16.4	8.5	5.9	4.6	2.4
New Caledonia	8.1	6.6	5.0	1.9	1.5	1.3
Papua New Guinea	0.5	0.4	—	0.1	0.1	—
Polynesia (FR)	3.2	2.6	2.3	0.8	0.7	0.7
Samoa (Western)	5.0	4.7	4.3	1.1	1.1	1.0
Solomon Islands	3.0	4.2	4.4	0.7	1.1	1.2
Tonga	4.9	3.7	5.4	1.1	0.9	1.4
Other countries	15.7	16.0	21.4	4.1	4.5	5.9
Total	**61.6**	**69.4**	**51.3**	**15.7**	**18.7**	**13.9**

(*a*) Meal and flour of wheat and flour of meslin.

WHEAT EXPORTS: A COMPARISON WITH OTHER EXPORT COMMODITIES(*a*)

Year	*Wheat for grain: Exports*		*Total Australian exports—all produce: Value f.o.b.*	*Export value of wheat for grain as a percentage of total Australian exports*
	Quantity	*Value f.o.b.*		
	'000 tonnes	$m	$m	per cent
1978–79	6,824	794.2	14,247	5.6
1979–80	14,876	2,176.8	18,870	11.5
1980–81	10,552	1,729.4	19,169	9.0
1981–82	10,912	1,719.7	19,581	8.8
1982–83	8,022	1,343.1	22,060	6.1
1983–84p	10,592	1,822.0	24,805	7.3

(*a*) These statistics exclude re-exports.

WORLD WHEAT: AREA AND PRODUCTION

Source: International Wheat Council, *World Wheat Statistics, 1984*

	Area (million hectares)			*Production (million tonnes)*		
	1981–82	*1982–83*	*1983–84p*	*1981–82*	*1982–83*	*1983–84p*
Europe	25.4	26.2	27.1	91.4	103.1	103.3
EEC (10)	12.7	13.0	13.2	54.3	59.9	59.3
U.S.S.R.	59.2	57.3	50.9	80.0	85.0	80.0
North & Central America	46.1	45.6	39.5	104.2	107.8	96.4
Canada	12.4	12.6	13.7	24.8	26.8	26.9
U.S.A.	32.8	32.0	24.9	76.2	76.5	66.0
South America	8.8	11.1	9.7	11.8	18.0	15.9
Asia	80.0	79.5	81.4	140.6	150.3	169.2
China(*a*)	28.3	27.9	28.5	59.6	68.4	81.4
India	22.3	22.1	23.2	36.3	37.5	42.5
Iran	5.9	6.0	6.0	6.6	6.5	6.5
Pakistan	7.0	7.1	7.3	11.5	11.1	12.4
Turkey	9.5	9.4	9.2	17.0	17.5	16.4
Africa	8.2	8.0	7.9	8.9	10.0	8.8
Oceania	12.0	11.6	13.0	16.7	9.2	22.4
Australia	11.9	11.5	12.9	16.4	8.9	22.1
Total world	**239.7**	**239.3**	**229.5**	**453.5**	**483.5**	**496.0**

(*a*) Excludes Taiwan Province; FAO estimates.

NOTE 1. Crop years shown cover northern hemisphere harvests combined with those of the southern hemisphere which immediately follow.
2. The 10 members of the EEC are: Belgium, Denmark, France, Federal Republic of Germany, Greece, Ireland, Italy, Luxembourg, Netherlands and the United Kingdom.

Coarse grains

In the late sixties and early seventies, restrictions on wheat deliveries and low returns in the sheep industry caused a resurgence of interest in coarse grain crops and the newer oilseed crops. The resultant higher level of plantings and production has been maintained, despite the lifting of wheat delivery quotas and a general improvement in market prospects for wheat, wool and meat.

Oats

Oats are traditionally a cereal of moist temperate regions. However, improved varieties and management practices have enabled oats to be grown over a wide range of soil and climatic conditions. They have a high feed value and produce a greater bulk of growth than other winter cereals; they need less cultivation and respond well to superphosphate and nitrogen. Oats have two main uses—as a fodder crop, following sowing or fallow or rough sowing into stubble or clover pastures or as a grain crop. Fodder crops can either be grazed and then harvested for grain after removal of livestock or else mown and baled or cut for chaff. Oats produced in New South Wales are marketed through a statutory board while the Victorian Oatgrowers' Pool and Marketing Company Ltd and private merchants market the bulk of oats produced in Victoria. In South Australia the Barley Marketing Act was amended in 1977 to give the Australian Barley Board powers over oat marketing in that State. Under the legislation amendments the Board controls export sales and grain resold on the local market; however, direct sales between producers and consumers are outside the Board's supervision. In Western Australia, oats are marketed under a warehousing system operated by Co-operative Bulk Handling Ltd.

Oats are usually next in importance to wheat and barley among the grain crops. About three-quarters of the crop is used domestically as stockfeed or for human consumption.

OATS FOR GRAIN: AREA, PRODUCTION AND EXPORTS

		Production		*Exports*	
Year	*Area*	*Quantity*	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1978-79	1,359	1,763	100.5	290	24.9
1979-80	1,123	1,411	98.8	472	43.8
1980-81	1,093	1,128	139.5	196	27.7
1981-82	1,388	1,617	155.7	153	24.1
1982-83	1,212	848	116.1	83	13.2
1983-84p	1,743	2,270	249.2	289	40.9

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley is grown principally as a grain crop although in some areas it is used as a fodder crop for grazing with grain being subsequently harvested if conditions are suitable. It is often grown as a rotation crop with wheat, oats and pasture. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock or sold for malting.

Crops sown for malting purposes require a combination of light textured soil of moderate fertility, reliable rainfall, and mild weather during ripening. The main barley-growing areas in Australia are situated in South Australia, but considerable quantities are grown also in New South Wales, Western Australia, Victoria and Queensland. In December 1980 a joint Commonwealth/Industry research scheme for the barley industry commenced operation. The scheme is financed by a levy on barley production and a Commonwealth contribution not exceeding the total of the levy.

Barley is marketed by statutory marketing authorities in each of the mainland States. The Australian Barley Board controls marketing in both South Australia and Victoria while separate authorities operate in the three other States.

BARLEY FOR GRAIN: AREA, PRODUCTION AND EXPORTS

		Production					
				Total		*Exports*	
Year	*Area*	*2-row*	*6-row*	*Quantity*	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha		—'000 tonnes—		$m	'000 tonnes	$m
1978-79	2,785	3,787	220	4,006	339.1	1,744	149.5
1979-80	2,482	3,545	159	3,703	449.8	2,962	353.5
1980-81	2,451	2,563	119	2,682	380.9	1,598	242.7
1981-82	2,685	3,252	198	3,450	463.4	1,577	241.3
1982-83	2,452	1,785	153	1,939	290.8	834	131.4
1983-84p . . .	3,163	4,617	320	4,937	846.0	3,122	499.4

Grain sorghum

The sorghums are summer growing crops which are used in three ways: grain sorghum for grain; sweet or fodder sorghum, sudan grass and, more recently, columbus grass for silage, green feed and grazing; and broom millet for brooms and brushware.

Grain sorghum has been grown extensively only in the last two decades. Rapid increases in production have resulted in a substantial increase in exports over this period. The grain is used primarily as stockfeed and is an important source for supplementing other coarse grains for this purpose.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum. In Queensland, grain sorghum production is concentrated in the Darling Downs, Fitzroy and Wide Bay-Burnett Divisions. In New South Wales, the northern and north-western slopes and plains are the main areas.

In Queensland, a degree of orderly marketing is ensured by the operation of the Central Queensland Grain Sorghum Marketing Board (a statutory authority in a defined area in central Queensland). A State statutory marketing board handles sorghum grown in New South Wales.

GRAIN SORGHUM: AREA, PRODUCTION AND EXPORTS

		Production		*Exports*	
Year	*Area*	*Quantity*	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1978–79	468.7	1,125.2	97.4	516.3	45.5
1979–80	518.6	922.0	96.1	580.4	59.8
1980–81	657.9	1,203.9	152.0	462.7	57.5
1981–82	648.6	1,316.7	140.1	1,270.9	152.8
1982–83	706.5	958.0	124.4	445.0	53.9
1983–84p	737.9	n.y.a	208.1	772.1	110.7

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. Maize for grain is almost entirely confined to the south-east regions and Atherton Tablelands of Queensland, the north coast, northern slopes and tablelands and the Murrumbidgee Irrigation Area in New South Wales. Small amounts are grown in all States, except South Australia, for green feed and silage, particularly in association with the dairy industry.

A statutory board controls the marketing of maize in the Atherton Tablelands area of Queensland. A large proportion of the crop is sold directly to food processors.

MAIZE: AREA, PRODUCTION AND EXPORTS

		Production		*Exports*	
Year	*Area*	*Quantity*	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1978–79	50.0	168.8	15.6	16.9	1.3
1979–80	54.1	150.9	19.8	7.7	0.9
1980–81	56.5	172.8	26.1	29.1	3.4
1981–82	61.0	212.4	29.6	14.2	1.9
1982–83	64.3	139.1	23.3	18.3	2.4
1983–84p	63.4	n.y.a	34.0	19.0	2.8

Rice

In Australia, rice was first grown commercially in 1924–25 in the Murrumbidgee Irrigation Area, one of three irrigation areas in southern New South Wales where rice is now produced. Today, about 96 per cent of Australia's rice is grown in New South Wales. The remainder is grown in the Burdekin River basin and at Mareeba in Northern Queensland.

Rice is a summer growing crop in N.S.W. The combination of irrigation water and the relatively cloudless days characteristic of summers in temperate regions of the world is the main contributing factor to the very high yields per hectare often achieved by N.S.W. growers. In Queensland, a winter and a summer crop are grown.

State statutory marketing boards are responsible for the marketing of the N.S.W. and Queensland crops.

RICE: AREA, PRODUCTION AND EXPORTS

		Production		*Exports*	
Year	*Area*	*Quantity(a)*	*Gross value*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	$m
1978–79	110.2	692.2	97.8	241.2	66.2
1979–80	116.4	613.2	93.8	457.3	129.9
1980–81	103.9	727.5	138.2	281.3	99.9
1981–82	122.9	853.9	103.5	596.3	195.4
1982–83	84.8	547.7	88.4	404.7	120.3
1983–84p	113.5	634.9	89.9	245.3	91.9

(*a*) In terms of paddy (or rough) rice.

Oilseeds

Specialised Oilseeds

The oilseeds industry is a relatively young industry by Australian agricultural standards.

Following the extremely poor, drought affected, 1982–83 crop, improved seasonal conditions and the attractive prices have led to a significant increase in the production of specialist oilseeds in 1983–84 with further increases in production forecast for the 1984–85 season. The expected profitability of oilseeds relative to crops such as wheat and coarse grains will continue to influence future production levels in the industry. This profitability will be related to domestic and international markets for protein meals and vegetable fats and oils.

The specialist oilseed crops grown in Australia are, sunflower, soybeans, rapeseed, safflower and linseed. Sunflower and soybeans are summer grown whilst the others are winter crops. In Australia, oilseeds are crushed for their oil, which is used for both edible and industrial purposes and protein meals for livestock feeds.

Oilseed crops are grown in all States but the largest producing regions are the grain growing areas of the Eastern States.

Sunflower

When crushed, sunflower seed yields a high quality dual purpose oil used primarily to manufacture margarine, salad and cooking oils.

Queensland produces about two thirds of the Australian crop with the Darling Downs and Central Highlands being the major regions. New South Wales is the next largest producer with the North West of the State dominating production. Smaller amounts are produced in all other states except Tasmania.

Soybeans

The major uses of soybean oil are in salad and cooking oils and margarine. Small amounts are used in the production of paints, detergents and plastics. Soybean also yields a high protein feed for livestock with a small proportion used to manufacture adhesives and synthetic fibres and meats.

Queensland and New South Wales produce virtually all of Australia's soybean crop. The main producing areas are the irrigation districts of the Darling Downs and northern New South Wales. Lesser areas include the Burnett and Lockyer regions of Queensland while production of raingrown soybeans is expanding on the North Coast of New South Wales.

In irrigated areas, soybeans have increasingly been used as a rotational crop for cotton.

Rapeseed

The main use of rapeseed oil has been in salad and cooking oils and in margarine with a small amount being used for industrial purposes.

The major production area is the south east of South Australia followed by the tablelands and slopes of New South Wales. Smaller levels of production also occur in Victoria, mainly in the Western Districts and in the south coast region of Western Australia.

Following significant increases in the 1960's and 1970's, rapeseed production declined rapidly due to problems of blackleg disease and erucic acid content. Production has recovered in recent years with the development of varieties to overcome these problems and in response to the crop rotation benefits of rapeseed.

Safflower

The oil from safflower is used in the production of cooking oil, margarine, soaps, paints, varnishes, enamels and textiles. In recent years, New South Wales and Queensland together have produced around 90 per cent of Australian output. In Queensland, most production occurs in the Central Highlands with smaller amounts coming from the Dawson-Callide Valley and the Darling Downs. New South Wales production is centred on the Central West.

Wide fluctuations in safflower production since the mid 1960's have been due to variable seasonal conditions affecting yields and the profitability of other crops which has influenced plantings.

Linseed

The oil from crushed linseed is used in the manufacture of paints, varnishes, technical inks and linoleum.

The main producing areas are the wheat belt of New South Wales, the Darling Downs in Queensland, the Western Districts of Victoria and, to a lesser extent, the south-eastern districts of Victoria. Linseed production has been generally declining in recent years.

SELECTED OILSEED CROPS: AREA, PRODUCTION AND GROSS VALUE

Year	*Sunflower*	*Soybeans*	*Rapeseed*	*Safflower*	*Linseed*	*Total*
			Area ('000 hectares)			
1978–79	260.7	53.7	22.3	74.7	13.1	424.5
1979–80	221.1	56.5	41.6	53.6	17.2	390.0
1980–81	197.7	39.6	23.6	18.3	10.0	289.2
1981–82	177.5	40.5	15.7	33.4	6.6	273.7
1982–83	176.1	48.3	12.4	11.5	4.9	253.2
1983–84p	200.7	46.7	17.8	49.7	5.6	320.4
			Production ('000 tonnes)			
1978–79	186.2	98.7	23.4	57.7	12.9	378.9
1979–80	141.7	82.0	41.1	30.0	14.4	309.2
1980–81	139.0	73.2	17.2	8.1	7.4	244.9
1981–82	115.1	77.1	14.5	19.6	6.0	232.3
1982–83	104.0	53.2	6.7	5.3	2.5	171.7
1983–84p	n.y.a.	n.y.a.	16.5	32.8	4.6	n.y.a.
			Gross Value ($ million)			
1978–79	45.8	24.6	4.8	11.0	2.6	88.8
1979–80	36.3	21.6	9.1	6.0	3.1	76.1
1980–81	34.3	22.4	4.5	2.2	2.2	65.6
1981–82	28.3	19.8	3.3	5.2	1.6	58.2
1982–83	27.2	15.1	1.6	1.6	0.7	46.2
1983–84p	47.0	n.y.a.	4.6	12.0	0.9	n.y.a.

Other Oilseeds

Peanuts and cottonseed are summer crops grown primarily for human consumption and fibre purposes respectively. The rapid expansion of the cotton industry in recent years has resulted in cottonseed becoming the major oilseed in Australia. Cottonseed oil is used mainly in the manufacture of compound cooking fats and margarine. The least important source of vegetable oils in Australia is peanuts as it is only the low quality kernels which are crushed for oil. Crushings may vary between 3000 and 7000 tonnes per annum depending on the quality of the crop. Peanut oil is a high quality oil which is used in the manufacture of margarine and in compound cooking fats and is also used as a cooking and salad oil.

Peanuts

The major peanut growing areas are around Kingaroy in South Queensland and the Atherton Tablelands in North Queensland, with smaller pockets of production around Tweed Heads in New South Wales, the Ord River area of Western Australia and around Douglas in the Northern Territory.

About 80 per cent of peanuts grown in Australia are of Virginia variety, the remainder is of Red and white Spanish variety.

Peanut production has been rising gradually for a number of years and 1978–79 was a record year due mainly to record yields. In 1982–83 the crop was severely affected by drought and the production was down to 23,000 tonnes (in shell basis) from 58,000 tonnes in the previous year. The 1983–84 output was estimated at some 51,000 tonnes.

Local demand for peanuts and peanut products is comparatively static with a limited potential for growth corresponding to population growth. The local growing industry normally supplies most of the domestic demand for edible peanuts in its major outlets—peanut butter, packaged trade and confectionery. Any surplus is sold on export markets. Exports vary according to the size of the crop.

PEANUTS: AREA, PRODUCTION AND GROSS VALUE

Year	*Area*	*Production*	*Gross value*
	('000 hectares)	('000 tonnes)	($ million)
1978–79	36.9	62.3	28.7
1979–80	31.7	38.9	22.3
1980–81	27.1	43.2	36.6
1981–82	33.4	57.6	37.0
1982–83	35.9	23.3	17.8
1983–84p	32.9	n.y.a.	41.0

Cotton

Cotton is grown primarily for its fibre (lint). When the cotton is matured, seed cotton is taken to a gin where it is separated (ginned) into lint, seed, and thrash. Lint is used for yarn while seed is further processed at an oil mill. There the short fibres (linters) remaining on the seed after ginning are removed. They are too short to make into cloth but are used for wadding, upholstery and paper. The seeds are then separated into kernels and hulls. Hulls are used for stock feed and as fertilizer while kernels are crushed to extract oil. The remaining cake is ground into meal which is protein roughage used as stock feed.

Over three-quarters of Australia's total production of cotton lint is grown in New South Wales, principally in the Namoi, Macquarie, Gwydir and McIntyre Valleys and the Bourke area. Irrigation water for these areas is provided from the Keepit, Burrendong, Copeton and Glenlyon dams and the Darling River. The rest is grown in Queensland, in the Emerald, Biloela, St George, and Darling Downs areas. Most of these areas are also irrigated. Australian production has for some time satisfied most of the requirements of local mills for short and medium staple cotton. Since the mid 1970s there has been very strong investment growth in the cotton industry and the resultant surge in plantings has resulted in large amounts of cotton becoming available for export.

Exports from the 1983–84 crop will account for about 86 per cent of production, and are expected to be about 124,000 tonnes of raw cotton (or lint), valued at over $200 million, with Japan, Taiwan and South Korea being the main markets.

A further expansion in Australian cotton plantings is expected in 1984-85. It is unlikely that local yarn spinners will increase production significantly in the medium term. Consequently any further growth in production is likely to be accompanied by a growth in cotton exports.

COTTON: AREA, PRODUCTION AND EXPORTS

		Seed cotton (a)				*Raw cotton export*	
Year	*Area*	*Quantity*	*Gross value*	*Cottonseed(b)*	*Lint(c)*	*Quantity*	*Value f.o.b.*
	'000 ha	'000 tonnes	$m	'000 tonnes	'000 tonnes	'000 tonnes	$m
1978–79	49.8	155.2	76.0	78.5	53.0	23.6	28.9
1979–80	75.0	243.7	135.3	135.8	83.2	48.5	66.9
1980–81	77.9	236.6	147.2	161.2	98.9	58.7	92.1
1981–82	92.3	324.9	182.0	219.0	134.0	79.2	117.2
1982–83	96.4	285.6	167.5	164.0	101.0	129.2	197.6
1983–84p	106.5	n.y.a.	266.9	190.0	141.0	81.5	147.9

(*a*) Before ginning. (*b*) Estimated by the Bureau of Agricultural Economics. (*c*) Provided by the Raw Cotton Marketing Advisory Committee.

Sugar

Sugar cane is grown commercially in Australia along the east coast over a distance of some 2,100 kilometres in a number of discontinuous areas from Maclean in northern New South Wales to Mossman in Queensland. The geographical spread contributes to the overall reliability of the sugar cane crop and of Australia's record as a reliable sugar supplier.

Approximately 95 per cent of production occurs in Queensland, with some 75 per cent of the crop grown north of the Tropic of Capricorn in areas where rainfall is reliable and the warm, moist and sunny conditions are ideal for the growing of sugar cane. The total area of land allocated to cane growing, among the 6,500 farms in 1983-84 was 378,000 hectares. Farm sizes range between 20-70 hectares.

Australian cane farmers are regarded as amongst the most efficient in the world and employ a high degree of mechanisation in ploughing, planting, harvesting, and transportation activities. The Australian industry was the first in the world to introduce mechanical cultivation and harvesting techniques and by 1964 the entire industry had converted to bulk handling.

The cane crop is generally planted in April/May and harvested from June to December the following year. The major proportion of each year's crop is from ratoons while in New South Wales most crops are allowed to grow for two seasons due to the slower growing conditions.

The organisation of the Australian sugar industry is complex. The Queensland Government controls the quantity of raw sugar produced through a system of mill peaks which is translated into cane quotas for growers. In addition the Queensland Government contracts with CSR Limited and Millaquin Sugar Company Pty Limited for the refining, marketing and distribution of home consumption needs, arranges through CSR Limited the export marketing of raw sugar, and regulates the division of industry proceeds between growers and millers.

There are 33 raw sugar mills located throughout the growing regions: 30 are located in Queensland and the remaining 3 in New South Wales. Fifteen of the mills are co-operatively owned by canegrowers and the remaining eighteen by proprietary companies. Refineries are located in each mainland capital city and at Bundaberg. The six bulk sugar export terminals located in Queensland are at present capable of storing 1.91 million tonnes. While raw sugar is the main product from mills, important by-products are bagasse (fibre), molasses, ash and filter mud.

In recent years sugar cane production has been around 24 million tonnes yielding between 3.1 and 3.5 million tonnes of sugar. In 1984 approximately 25 million tonnes of cane are expected to be crushed to produce 3.5 million tonnes of sugar.

Area, production and yield levels for sugar cane from 1977-78 to 1982-83 are provided in the following table.

SUGAR CANE: AREA, PRODUCTION AND YIELD

	New South Wales					*Queensland*				
	Sugar cane cut for crushing			*Raw sugar(a)*		*Sugar cane cut for crushing*			*Raw sugar(a)*	
Year	*Area harvested*	*Production*	*Yield*	*Quantity*	*Yield*	*Area harvested*	*Production*	*Yield*	*Quantity*	*Yield*
	'000 ha	'000 tonnes	t/ha	'000 tonnes	t/ha	'000 ha	'000 tonnes	t/ha	'000 tonnes	t/ha
1978-79	14.1	1,321.5	94.1	152.7	10.9	237.7	20,135.5	84.7	2,748.9	11.6
1979-80 . . .	11.8	1,291.5	109.1	155.8	13.2	255.4	19,859.6	77.8	2,807.2	11.0
1980-81	14.0	1,435.3	102.4	181.2	12.9	274.3	22,540.4	82.2	3,148.5	11.5
1981-82	14.3	1,505.9	105.4	184.7	13.4	301.7	23,587.9	78.2	3,250.4	10.8
1982-83	16.0	1,702.3	106.5	175.9	11.0	302.5	23,114.8	76.4	3,324.2	11.0
1983-84p . . .	15.2	1,539.8	101.3	159.0	10.5	292.0	22,723.0	77.8	3,011.6	10.3

(*a*) In terms of 94 net titre.

The domestic market is reserved entirely for sugar produced in Australia. This is achieved by an embargo on the import of sugar. The maximum price of refined sugar for sale to wholesalers and manufacturers is fixed each six months under a formula contained in the Commonwealth/Queensland Sugar Agreement.

Domestic sales account for about 770,000 tonnes annually or approximately twenty per cent of the total industry sales. Granulated sugars account for about 75 per cent of the total domestic sales with liquid sugars (15 per cent), castor sugar (5 per cent), and raw sugar taking up the bulk of the remainder. About two-thirds of the sales of refined sugar products go to processed food and drink manufacturers.

The Australian sugar industry exports about 80 per cent of its annual raw sugar production and is one of the world's largest sugar exporters. In 1983 exports totalled 2.40 million tonnes compared with exports from Cuba of 6.79 million tonnes, Brazil 2.80 and the EEC 4.91 million tonnes.

In 1983–84 the domestic market and long-term contracts with Korea, Malaysia, Singapore, New Zealand and China provided secure outlets for approximately 50 per cent of the industry's capacity, the balance of export sugar being sold on the free market.

The disposal pattern of Australia's sugar production is shown in the following table.

SUGAR: AREA, PRODUCTION, EXPORTS AND CONSUMPTION

		Production			*Exports*			
		Sugar cane		*Raw sugar*	*Raw and refined sugar*		*Apparent consumption in Australia(a)*	
Year	*Area harvested*	*Quantity*	*Gross value*	*Quantity*	*Quantity*	*Value f.o.b.*	*Total*	*Per head*
	'000 ha	mil. tonnes	$m	mil. tonnes	mil. tonnes	$m	'000 tonnes	kg
1978-79	251.7	21.5	396.5	2.9	1.8	448.2	710.1	49.2
1979-80	267.2	21.5	548.2	3.0	2.2	666.9	692.5	47.4
1980-81	288.3	24.0	799.7	3.3	2.6	1,146.2	721.4	48.7
1981-82	315.9	25.1	590.2	3.4	3.4	777.7	710.8	47.2
1982-83	318.5	24.8	508.9	3.5	3.9	557.7	696.0	45.5
1983-84p	307.1	24.3	507.9	3.2	3.0	621.3	n.y.a	n.y.a

(*a*) Total quantity of sugar available for consumption in Australia comprises refined sugar and refined sugar contained in manufactured foods.

Australia has regularly participated in arrangements to regulate the international sugar market and was a signatory to the 1977 International Sugar Agreement (ISA) which expired at the end of 1984. A new ISA commenced on 1 January 1985 but has none of the economic provisions of earlier Agreements due to the failure of negotiations on the details of such provisions.

Vegetables

Vegetables for human consumption

The area sown to vegetables reached a peak of over 200,000 hectares in 1945, but has remained static at around 106,000 hectares since 1975–76. However, yields from most vegetable crops have increased due to variety breeding for increased yields, greater use of irrigation and better control of disease and insect pests.

Because of the wide climatic range in Australia, supplies for main city markets are drawn from widely different areas, depending on the times of maturity of the various crops. Historically, market gardens were located near urban centres and, while many small scale growers still produce crops close to city markets, urban expansion, rising urban land values, improvements in transport and irrigation and developments in freezing, canning and drying have extended the industry far from the cities. Transport costs are reduced by the location of processing establishments in producing areas, although city markets still absorb the bulk of fresh and processed produce.

Potatoes. Potatoes require deep friable soils which, in Australia, are usually basaltic, alluvial or swampy in origin. Fertiliser requirements, which are generally high, vary with the type of soil. While potatoes require only moderate temperatures for growth, the greatest proportion of Australia's potatoes are grown as a summer crop because potato plants are killed by heavy frosts. In recent years an increasing proportion of potatoes has been grown under irrigation and potato growing has become increasingly mechanised, with individual growers having larger areas and becoming more specialised.

Over the last two decades increases in per capita consumption have followed population increases. Consumption of processed potato products is forecast to continue to increase slightly. The main processed potato products are frozen chips, crisps, dehydrated granule and flake. Other, but less important, processed potato products are soup, baby foods, salads and canned potatoes.

Potato marketing. Seventy per cent of total production is sold through fresh market outlets with the remaining 30% going to processing. The principal forms of potato processing are canning, drying and freezing. The majority of processing potatoes are purchased by the three frozen french fry potato processors who operate in Tasmania and Victoria. Processors negotiate contracts directly with growers. South Australia and Western Australia have marketing authorities which monitor production, pricing and the sale of potatoes. Other States rely on potato merchants and agents for marketing.

Potato trading. Exports of fresh potatoes, and potato flour, meal and flakes have shown an overall increase in the last decade, until 1982–83 when due to seasonal conditions there was a marked decrease in exports of fresh potatoes. Imports of processed potatoes are generally insignificant.

Tomatoes. Tomatoes are grown generally for the fresh market. The major producing States are Queensland and Victoria. Processing is undertaken mainly in Victoria, New South Wales and South Australia.

Onions. Onions are grown throughout Australia with the major producing States being South Australia and Queensland. Processing is relatively insignificant.

Other Vegetables. The other major vegetables produced are carrots, cauliflowers and cabbages (mainly for the fresh market) and peas and beans (processing).

APPARENT CONSUMPTION OF VEGETABLES

(Kilograms per capita per year)

Year	*Potatoes*	*Other root and bulb vegetables*	*Tomatoes*	*Leafy and green vegetables*	*Other vegetables*	*Total, fresh equivalent weight*
1977–78	50.4	16.9	13.3	22.5	17.7	120.9
1978–79	51.5	17.2	13.5	27.5	19.5	129.2
1979–80	54.9	17.3	14.6	25.1	17.6	129.5
1980–81	54.9	17.5	15.7	22.3	17.5	127.8
1981–82	57.6	18.7	16.7	20.8	17.2	130.9
1982–83	52.3	16.9	16.4	21.3	18.1	125.0

VEGETABLES FOR HUMAN CONSUMPTION: AREA AND PRODUCTION

Year	*French and runner beans*	*Cabbages*	*Carrots*	*Cauli-flowers*	*Onions*	*Green peas*	*Potatoes*	*Tomatoes*	*Total vege-tables*
				AREA ('000 hectares)					
1978-79 . . .	8.1	2.7	3.5	3.1	3.7	15.7	34.6	8.2	107.4
1979-80 . . .	7.1	2.5	3.6	3.3	4.0	14.5	36.7	8.5	106.5
1980-81 . . .	(a)6.3	2.4	3.7	(a)2.8	4.0	(a)10.8	35.7	9.1	103.0
1981-82 . . .	7.1	(a)2.4	3.9	3.1	4.0	12.1	(a)36.1	9.1	106.7
1982-83 . . .	6.7	2.5	3.8	3.3	4.2	14.8	(a)37.4	8.7	103.2
1983-84p . .	n.y.a.	n.y.a.	n.y.a.	n.y.a.	3.8	n.y.a.	32.3	12.3	108.8

Year	*French and runner beans*	*Cabbages*	*Carrots*	*Cauli-flowers*	*Onions*	*Green peas*		*Potatoes*	*Tomatoes*
						Process-ing (shelled weight)	*Sold in pod (pod weight)*		
				PRODUCTION ('000 tonnes)					
1978-79 . . .	45.0	127.6	105.0	116.4	105.2	51.4	2.4	794.6	172.6
1979-80 . . .	34.3	74.7	101.6	94.6	119.9	43.0	2.1	857.4	196.9
1980-81 . . .	(a)34.0	76.1	112.6	(a)79.2	114.8	(a)32.6	(a)1.5	865.8	216.8
1981-82 .	34.6	(a)71.0	112.5	85.4	127.4	38.4	1.7	(a)918.6	228.4
1982-83 . . .	33.5	67.2	105.0	76.5	129.0	45.9	2.0	858.5	224.1
1983-84p . .	n.y.a.	n.y.a.	n.y.a.	n.y.a.	118.7	n.y.a.	n.y.a.	n.y.a.	267.7

(a) Incomplete; information on this commodity was not separately collected in some States.

Value of production and value of exports

Gross value of production for 1983-84p amounted to 696.5 million dollars. Export value of fresh, frozen, or otherwise prepared vegetables amounted to 48 million dollars for the same period. For details of previous years *see* Year Book No. 68, p277.

PROCESSED VEGETABLES: AUSTRALIAN PRODUCTION

('000 tonnes—unless otherwise stated)

Derived from the recorded monthly production of the Manufacturing Census

Item	*1978-79*	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1983-84p*
Quick frozen vegetables—						
Beans	25.9	16.1	19.2	22.5	16.7	21.2
Peas	46.3	38.9	35.5	47.3	42.4	41.7
Potatoes	58.2	65.8	77.9	94.3	94.8	107.8
Other	25.1	28.3	25.2	34.3	25.5	25.2
Vegetables preserved, canned or bottled (excluding pickles, etc.) (*a*)—						
Beans—Green	4.9	3.7	3.4	5.7	4.1	4.1
Baked (including pork and beans)	22.9	26.1	21.3	25.0	27.4	n.a.
Beetroot	28.4	25.9	23.3	26.1	n.a.	n.a.
Carrots	5.1	6.1	4.4	3.7	4.4	2.5
Cucumber (including pickled) .	1.4	1.0	1.6	0.9	n.a.	1.2
Gherkins—pickled	2.2	1.9	2.3	2.2	2.0	2.1
Olives—pickled	0.6	0.3	0.5	0.5	0.5	0.6
Onions (including pickled) . .	3.9	4.1	4.9	3.4	3.5	2.7
Peas—Green	15.1	9.7	9.4	11.2	13.7	11.9
Tomatoes (excluding canned pulp)	11.8	13.1	15.3	15.4	9.9	17.8
Tomato juice (million litres) .	7.4	9.3	7.0	8.3	4.5	n.a.

(*a*) Canned in tinplate or aluminium cans; bottled in glass bottles.

For further information on vegetables *see* the following publications: *Crops and Pastures, Australia* (7321.0), *Production Bulletin No.* 3: *Food, Drink and Tobacco, Australia* (8359.0), *Apparent Consumption of Foodstuffs and Nutrients, Australia* (4306.0) and *Value of Agricultural Commodities Produced, Australia* (7503.0).

Fruit (excluding grapes)

A wide variety of fruit is grown in Australia ranging from pineapples, mangoes and papaws in the tropics to pome, stone and berry fruits in the temperate regions.

Citrus fruits (predominantly oranges) are grown in all States except Tasmania and account for almost half of the production of all orchard fruits. New South Wales and South Australia produce the greatest quantity of citrus, followed by Victoria; Queensland's production is much lower while that of Western Australia is very small. Pome fruits (apples and pears) account for about 40 per cent of orchard fruit grown in Australia. Victoria, Tasmania and New South Wales are the most important apple-growing States with significant quantities also being grown in the other States. About 80 per cent of all Australian pears are produced in Victoria. Stone fruits (peaches, apricots, plums and prunes, cherries and nectarines) account for around one-eighth of orchard fruit production. Heaviest production is in Victoria, South Australia and New South Wales, with smaller quantities in the other States. Pineapples (about 80 per cent canned) and bananas (virtually all sold fresh) are the most important tropical fruits. Queensland produces almost all the pineapples and about 46 per cent of the bananas grown in Australia. Banana production on the sub-tropical north coast of New South Wales is equivalent to that of Queensland with the remaining 8 per cent of production grown in Western Australia.

In recent years there has been rapid expansion in the cultivation of many relatively new fruit crops in Australia. The combined gross value of output of these new fruits is presently worth about $40m a year and there is considerable scope for continued growth in the future.

Avocado is perhaps the most commonly known of these crops and production has expanded considerably during the past decade to a current gross value of over $6m. Avocado production is mainly in Queensland and New South Wales with minor quantities produced in Western Australia, South Australia, and Victoria.

Kiwifruit is a relatively new temperate fruit crop to Australia. Production has been expanding rapidly mainly in Victoria and New South Wales and further expansion is expected. Of the berry fruits, strawberries are widely grown, with largest production in Victoria and Queensland. Interest in the production of blueberries in Australia has developed only recently and plantings of blueberries have increased rapidly mainly in Victoria and New South Wales. Other berries (currants and raspberries) are grown predominantly in Tasmania and production has been reasonably constant over the past five years.

Tropical fruit such as mangoes, papaws, passionfruit, custard apples and guavas, are grown mainly in Queensland. Smaller quantities of tropical fruit are produced in the north coast region of New South Wales, Western Australia and more recently Northern Territory. The largest expansion has been of mango production which has more than doubled since 1979. Given the large number of non-bearing mango trees production is expected to continue to increase dramatically. There is also considerable interest in many other exotic tropical and subtropical fruits. Production of lychees and persimmons has recently commenced and some plantings of rambutan, sapote and longans have been made, mainly in Queensland and the north coast region of New South Wales.

Almond is still the major nut crop in Australia with almost the entire almond crop produced in South Australia and Victoria. Pecan nut production increased substantially in the 1970s, mainly in northern New South Wales. More recently plantings of pistachio trees have commenced in South Australia, Victoria, New South Wales and Western Australia. The major expansion in the nut crops has been with macadamias, a native Australian tree. The main growing regions are the coastal region of northern New South Wales and southern Queensland. During the past decade production of macadamia nuts has increased rapidly to a current gross value of about $3m.

SELECTED FRUIT STATISTICS

Year	*Orchard fruit: number of trees ('000)* Apples	Oranges	Pears	Peaches	*Tropical, and other fruits: area (ha)* Bananas	Pineapples	Other fruit	Total area of fruit (ha)
1978-79 . . .	5,964	5,299	1,602	1,531	8,062	6,390	1,676	96,998
1979 80 . . .	6,113	5,532	1,601	1,570	8,136	6,784	1,744	98,451
1980-81 . . .	6,099	5,872	1,622	1,649	8,558	6,583	1,831	100,516
1981 82 . . .	6,065	6,055	1,703	1,669	8,740	6,373	1,738	102,068
1982 83 . . .	6,098	6,219	1,556	1,642	9,040	6,010	1,774	104,325
1983 84p . . .	6,068	6,520	1,500	1,634	9,103	5,949	2,078	107,214

Year	Apples	Apricots	Bananas	Cherries	Oranges	Peaches	Pears	Pine-apples	Plums and Prunes
					PRODUCTION ('000 tonnes)				
1978 79 . .	344.9	31.0	113.1	6.8	368.6	64.8	127.6	105.1	28.9
1979 80 . .	298.8	26.4	125.1	(a) 3.9	392.1	71.5	124.3	123.3	(a) 15.0
1980 81 . .	306.9	30.6	124.3	6.5	424.5	79.2	145.6	123.3	20.8
1981-82 . .	294.5	27.1	129.6	5.4	376.3	64.6	(a) 109.7	125.5	16.4
1982 83 . .	300.8	26.9	140.5	4.2	410.0	63.0	119.2	111.3	20.6
1983 84p . .	n.y.a.	23.2	163.5	3.5	381.4	53.5	n.y.a.	121.3	19.5
					GROSS VALUE OF PRODUCTION ($ million)				
1978 79 . .	100.1	13.5	50.8	9.3	74.1	20.6	31.7	18.4	15.3
1979 80 . .	107.7	13.9	45.9	5.8	77.9	24.0	36.5	20.2	10.6
1980 81 . .	118.9	16.9	59.5	10.0	86.0	25.7	41.4	19.8	15.2
1981 82 . .	124.2	18.1	61.4	13.2	89.6	23.0	(a) 30.8	20.5	11.2
1982 83 . .	132.4	18.3	70.1	7.9	101.0	21.3	31.2	25.4	16.9
1983-84p . .	133.9	n.y.a.	83.9	n.y.a.	n.y.a.	25.4	36.8	30.6	n.y.a.

(a) Incomplete; information on this commodity was not separately collected in some States.

Processed fruit and fruit products

After rapid expansion in the 1960s, output of canned fruit declined and then levelled off due to the effects of contracting overseas markets for Australian canned fruit. Production of natural fruit juices has increased markedly in the last decade and this has reflected improvements in marketing methods, effective promotion and public awareness of the nutritious value of natural juices.

FRUIT PRODUCTION

Derived from the Annual Manufacturing Census and the recorded monthly production

	Unit	1978–79	1979–80	1980–81	1981–82	1982–83	1983–84p
Fruit juice based cordials and syrups(*a*)	mil litres	73.6	76.3	77.8	80.4	78.7	69.6
Natural fruit juice(*b*)—							
Single strength	mil litres	186.2	208.4	232.6	187.3	n.y.a.	n.y.a.
Concentrated(*c*)	"	15.7	24.6	32.6	27.3	n.y.a.	n.y.a.
Cider and perry	"	14.7	17.1	15.0	19.0	n.y.a.	n.y.a.
Canned or bottled fruit (excl. canned pulp)	'000 tonnes	224.9	257.5	226.4	146.7	157.6	153.0
Jams	'000 tonnes	31.8	21.8	29.1	32.6	29.3	30.3

(*a*) Containing at least 25 per cent by volume of pure fruit juices. (*b*) Excludes fruit drinks consisting of diluted fruit juices with or without artificial flavourings. (*c*) Excludes grape must, and comprises actual quantity of concentrated juices.

APPARENT CONSUMPTION OF FRUIT

(kg per capita per year)

Year	*Fresh* Oranges	Other citrus	Other fresh fruit	Jams, conserves, etc.	Dried tree fruit	Processed fruit	Total, fresh equivalent weight
1977–78	29.1	6.3	33.2	1.8	0.7	10.7	91.1
1978–79	28.1	7.4	34.4	2.3	0.4	10.5	93.0
1979–80	33.8	6.4	39.3	1.5	0.6	12.4	106.1
1980–81	33.8	7.7	35.8	1.5	0.4	11.7	102.2
1981–82	32.1	7.0	38.8	1.8	0.6	10.9	102.4
1982–83	36.0	6.6	38.8	1.8	0.6	9.5	104.4

Fruit exports

The value of exports of fruit and fruit products (excluding grapes) has in recent years accounted for more than a quarter of the value of the production of such fruit. Fresh or chilled fruit (mostly apples, pears and citrus) account for some 40 per cent of this; preserved fruit (mostly canned pears and peaches) make up most of the remainder; only small quantities of dried fruits (other than grapes) are exported.

Value of exports of fresh, dried and preserved fruit in recent years peaked at $90 million in 1972–73, trending downwards since that time although exports of preserved fruit showed some revival in 1976–77.

Fresh apple exports to Europe have been markedly reduced in recent years mainly because of rising shipping costs and improved storage techniques in Europe. On the other hand, there has been some expansion to markets in other areas such as South East Asia and the Middle East. Fresh pear exports to Europe have also declined but not to the same extent as apples. Other export markets for pears such as in South East Asia, have gained in importance in recent years. Exports of citrus, predominantly oranges, have been relatively steady in recent years but are sensitive to competition from the U.S.A. Exports of oranges were made to Japan for the first time in 1983–84. The Australian industry sees this as an important first step in establishing a potentially important trade with Japan. Effects of the E.E.C. import regime have shown in a decrease in processed fruit exports to Europe, although the U.K. remains Australia's main market.

FRUIT EXPORTS: VALUE F.O.B.

($ million)

	Fresh and chilled			*Canned or bottled*					
Year	*Apples*	*Pears*	*Oranges*	*Apricots*	*Peaches*	*Pears*	*Peaches and pears*	*Pine-apples*	*Fruit salad*
1978–79	15.6	15.7	5.6	0.8	12.2	17.2	1.9	1.2	4.3
1979–80	20.1	18.3	9.9	1.5	19.3	20.0	3.6	3.1	7.6
1980–81	15.3	20.0	8.0	1.3	16.0	20.6	3.0	3.5	9.6
1981–82	19.0	13.7	8.9	1.0	15.4	13.7	2.1	3.6	7.5
1982–83	15.7	17.8	12.6	1.1	13.8	16.5	2.4	2.2	9.8
1983–84p . . .	13.7	16.0	9.5	1.2	13.4	10.9	1.8	2.5	10.7

FRUIT: VALUE OF PRODUCTION AND EXPORTS

($ million)

	Gross value			
Year	*Orchard fruit*	*Tropical, berry and other*	*Total*	*Exports(a) value f.o.b.*
1978–79 . .	306	82	388	95
1979–80 . .	325	82	407	131
1980–81 . .	366	94	460	131
1981–82 . .	365	99	464	122
1982–83 . .	385	113	498	135
1983–84p . .	n.y.a.	n.y.a.	543	117

(*a*) Fruit and nuts, excluding grapes (fresh and dried); includes fresh, dried and preserved and fruit preparations.

Fruit imports

Small quantities of fresh fruit, mainly off-season citrus from the U.S.A., are imported, while most imports of dried fruit consist of dates from China, Iraq, Iran, Pakistan and the U.S.A. Dried apricots became a significant import in 1984. Imports of orange juice have increased to around 100 million litres in recent years to meet the shortfall in Australian production.

Marketing and regulation of the fruit industry

Apples and pears. The Australian Apple and Pear Corporation has the function of promoting and controlling the export of Australian apples and pears as well as the promotion of trade and commerce in apples and pears within Australia. It also has power to promote, or engage in, research relating to the production, packaging, handling, transportation or marketing of apples and pears and to promote new apple and pear products.

The current underwriting schemes for export apples and pears terminate at the end of the 1985 export season. Under the schemes the Government guarantees a minimum return of 95 per cent of the weighted average returns for all apple and pear exports over the preceding four seasons. The Industries Assistance Commission is to report in mid-1985 on what Government assistance measures may be appropriate for the apple and pear industry after the 1985 season.

Canned Fruit. On 29 November 1979 the Commonwealth enacted legislation restructuring the industry's marketing arrangements. Similar complementary legislation has been enacted by the four States of New South Wales, Victoria, South Australia and Queensland.

Under the legislation the Australian Canned Fruits Corporation (replacing the Australian Canned Fruits Board) is empowered to acquire and sell the production of canned apricots, peaches and pears and is responsible for determining prices, terms and conditions for sales in both Australian and export markets. Sales are made through markets nominated by canners and approved by the Corporation. Markets are classified as Pool and Non-Pool with returns from Pool markets equalised by the Corporation. Entitlements for sales in Pool markets are allocated to canners prior to the start of each season.

The Corporation's administrative expenses are financed by a levy imposed on the production of canned fruits under the *Canned Fruits Levy Act* 1979.

The Corporation is advised in the performance of its functions by the Australian Canned Fruits Industry Advisory Committee.

In August 1984, the operation of the Australian Canned Fruits Corporation (ACFC) was extended for a further three years to the end of 1987. A more commercially orientated and flexible corporation is envisaged with the expansion of the corporation's board to make it more effective in its commercial operations, more accountable to industry and government and more capable of achieving its objective of improving returns to growers.

As of 30 June 1984, the Fruit Industry Sugar Concession Committee ceased to operate and guidelines for minimum prices paid to growers for canning fruit are now set independently by the Canning Fruit Committee of the ACFC.

For further data on fruits and fruit products *see* the publications *Fruit, Australia* (7322.0), *Production Bulletin No.* 3: *Food, Drink and Tobacco, Australia* (8359.0), *Apparent Consumption of Foodstuffs and Nutrients, Australia* (4306.0) and *Value of Agricultural Commodities Produced, Australia* (7503.0).

Grapes

Grapes are a temperate crop which requires warm to hot summer conditions for ripening and predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for winemaking, drying and, to a minor extent, for table use. Some of the better known wine producing areas are Barossa, Clare, Riverland, Southern Districts and Coonawarra (S.A.); North Eastern Victoria and Great Western (Vic.); Hunter and Riverina; (N.S.W.); Sunraysia (N.S.W. and Victoria); Swan Valley and Margaret River (W.A.).

Nearly all the dried fruit is produced along the River Murray and its tributaries in Victoria and N.S.W. with small localised areas in other States.

VITICULTURAL STATISTICS: AREA, PRODUCTION AND VALUE

			Production: grapes used for—			
	Area				*Total(a)*	
Year	*Bearing*	*Total*	*Winemaking*	*Drying*	*Quantity*	*Gross value*
	'000 ha	'000 ha	'000 tonnes fresh weight	'000 tonnes fresh weight	'000 tonnes fresh weight	$m
1978–79	65.8	70.6	465.6	227.1	716.4	150.1
1979–80	65.2	69.7	502.5	339.2	865.3	231.1
1980–81	64.7	69.5	473.1	248.1	743.4	178.2
1981–82	63.7	68.4	499.9	361.7	884.9	222.8
1982–83	61.9	66.5	431.3	310.3	768.1	212.5
1983–84p . . .	62.3	66.3	510.2	321.2	862.4	217.6

(*a*) Includes grapes used for table and other purposes.

The bearing area of vines fell by 5 per cent between 1978–79 and 1983–84. Area of vines not yet bearing has also decreased slightly from 1978–79 to 1983–84. Production of wine grapes has remained at around 500,000 tonnes in recent vintages, except for a reduced 1983 vintage of 431,000 tonnes due to adverse climatic conditions. Production of wine grapes has increased by over 65 per cent since 1972–73.

The multipurpose grape production base has not shown much change over this period, apart from annual variations due to seasonal conditions. Multipurpose grapes are used predominantly for winemaking and drying, the latter process being particularly susceptible to adverse seasonal conditions. There was a diversion of multipurpose grapes to winemaking during most of the 1970s and this resulted in a decline in the volume of grapes dried. However, in the early 1980s, there has been some reversal in this trend, and production of dried vine fruit in 1980, 1982, 1983 and 1984, while assisted by seasonal conditions, reached higher levels than had prevailed since the late 1960s. Whilst it is possible that domestic consumption of dried vine fruit could rise (as real prices fall) variations in the quantity of grapes dried will be directly reflected in quantities available for export. Currently, the world market for dried vine fruits is oversupplied, with about 200,000 tonnes or fruit surplus to known demand. Average to above average packs are expected from the 1984 Northern Hemisphere harvests, adding further to the oversupply of fruit. The most immediate effect of surplus fruit has been a fall in world prices in all markets, except the EEC, where the minimum import price is underpinning market price levels. Australian exporters have continued to make significant sales on international markets (assisted by the high quality of the Australian product) but have recently experienced some difficulties in selling to the UK and Japan as a result of increased price competition. The Australian Dried Fruits Corporation is the body responsible for the organisation of the export trade in dried vine fruits. The Corporation also administers the statutory Dried Vine Fruits Equalisation Scheme and the Dried Sultana Production Underwriting Scheme. Until 1983 imports of dried vine fruit had been largely insignificant. However, in 1982-83 imports totalled 2,473 tonnes with 2,017 tonnes coming from Greece. Greek fruit is subsidised and in August 1984 provisional countervailing measures were introduced against fruit imports from Greece.

Varietal Statistics: 1983 Season

Varietal information relating to vines, grape production by end use and yield per hectare, is obtained in a special collection conducted at 30 June in New South Wales, Victoria, South Australia and Western Australia of all growers who reported vines in the Agricultural Census. No varietal information is collected in the other States and Territories. There is continuing research into correct identification of varieties to find out which are most suitable for different wine styles and different regions and several varieties have recently been re-named. The data are aggregated from the States of New South Wales, Victoria, South Australia and Western Australia only.

VITICULTURE: AREA AND PRODUCTION BY VARIETY, 1983 SEASON

					Production			
	Area of vines at harvest			*Grubbings (actual and/or intended)*	*Grapes used for—*			
	Bearing	*Not yet bearing*	*Total*		*Wine-making*	*Drying*	*Table*	*Total*
	—hectares—			hectares	—tonnes (fresh weight)—			
Red Grapes—								
Cabernet Sauvignon	3,462	302	3,764	109	19,842	—	115	19,957
Currant (incl. Carina)	1,703	121	1,824	53	260	15,915	41	16,216
Grenache	4,001	33	4,034	308	35,535	—	276	35,811
Mataro	1,159	13	1,173	65	11,980	—	157	12,137
Shiraz	6,958	84	7,042	324	45,787	1	294	46,082
Other red grapes	2,029	427	2,457	108	9,347	55	4,279	13,681
Total red grapes	*19,312*	*980*	*20,293*	*968*	*122,752*	*15,971*	*5,162*	*143,885*
White grapes—								
Chardonnay	881	724	1,605	5	4,627	—	17	4,644
Doradillo	1,597	13	1,610	90	31,026	102	171	31,299
Muscat Blanc	586	94	681	14	5,203	—	81	5,284
Muscat Gordo Blanco	4,203	280	4,484	114	67,625	6,917	581	75,123
Palomino and Pedro Ximenes	2,267	63	2,330	132	26,711	—	16	26,726
Rhine Riesling	4,282	515	4,796	76	28,867	—	67	28,934
Semillon	2,697	172	2,869	60	28,447	—	87	28,533
Sultana	17,311	776	18,084	232	50,804	280,676	7,955	339,436
Waltham Cross	1,434	49	1,483	55	6,694	6,501	3,911	17,106
Other white grapes	5,834	752	6,586	179	57,923	107	3,174	61,205
Total white grapes	*41,092*	*3,438*	*44,530*	*957*	*307,926*	*294,305*	*16,059*	*618,289*
Total grapes	**60,404**	**4,418**	**64,823**	**1,924**	**430,678**	**310,275**	**21,221**	**762,174**

DRIED VINE FRUIT: PRODUCTION, EXPORTS AND CONSUMPTION
(Dried weight)

	Production				*Exports*				
							Total		*Consumption of dried vine fruit*
Year	*Raisins*	*Sultanas*	*Currants*	*Total*	*Raisins/ sultanas*	*Currants*	*Quantity*	*Value f.o.b.*	
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	$m	kg
1978–79 .	4.7	46.4	5.5	56.6	45.6	1.9	47.5	46.9	1.7
1979–80 .	5.3	71.8	5.8	82.8	39.2	2.3	41.5	55.1	1.9
1980–81 .	5.7	50.7	4.8	61.1	50.1	1.9	52.0	75.5	1.8
1981–82 .	5.8	78.5	5.9	90.2	38.5	0.8	39.4	49.5	1.7
1982–83 .	3.9	64.9	4.7	73.4	57.1	2.4	59.5	59.7	1.9
1983–84p	n.y.a	n.y.a	n.y.a.	n.y.a.	51.6	0.9	52.5	54.1	n.y.a.

Wine industry

Australia produces a wide range of wine and brandy products. Over the past five years there has been a distinct trend towards greater production and consumption of unfortified or table wines. In the twelve months ending June 1984 sales of table wine accounted for almost 75 per cent of all sales of Australian wine. The large growth in table wine sales over the past five years has been principally due to the successful marketing of wine in casks. Imports and exports of wine are roughly equivalent and represent about 3% of the total domestic market for wine. The Australian Wine and Brandy Corporation, which commenced operation on 1 July 1981, replacing the Australian Wine Board, is the body responsible for the control of the export trade in grape products. Like its predecessor, the Corporation has the power to regulate exports as well as promotion and publicity functions in export markets and in Australia. The Corporation has the power to trade with the approval of the Minister for Primary Industry but, to date, this power has not been invoked.

PRODUCTION, CONSUMPTION AND EXPORT OF WINES

		Exports		
Year	*Production*	*Quantity*	*Value f.o.b.*	*Consumption in Australia per capita*
	mil. litres	mil. litres	$m	litres
1978–79	335.1	5.3	6.3	16.4
1979–80	414.2	6.1	8.4	17.3
1980–81	374.3	7.5	11.9	18.2
1981–82	402.7	8.4	14.0	19.1
1982–83	340.1	8.1	13.5	19.7
1983–84p	n.y.a.	9.0	16.8	20.5

For further details on viticulture, dried vine fruit, wine, etc. *see* the following publications: *Fruit, Australia* (7322.0), *Sales and Stocks of Australian Wine and Brandy* (8504.0) and *Viticulture, Australia* (7310.0).

Miscellaneous crops

The principal crops not covered above include fodder crops, tobacco, hops and mushrooms which, in 1982–83, had gross values as follows:

Crops	*Gross value*	*Per cent of total crop gross value*
	$m	%
Fodder crops (hay)	100.6	2.0
Lupins	30.3	0.6
Tobacco	61.9	1.2
Hops	9.8	0.2
Mushrooms	27.1	0.5
Other (incl. nurseries)	232.8	4.6

Fodder crops

As well as crops specifically for grain, considerable areas of Australia are devoted to fodder crops. These crops are utilised either for grazing (as green feed), or conserved as hay, ensilage, etc.

This development of fodder conservation as a means of supplementing pasture and natural sources of stockfeed is the result of the comparatively unreliable nature of rainfall in Australian agricultural areas.

FODDER CROPS: AREA AND PRODUCTION

Year	*Hay(a)*			*Green feed or silage(b)*	
		Production			
	Area	*Quantity*	*Gross value*	*Area*	*Silage made*
	'000 ha	'000 tonnes	$m	'000 ha	'000 tonnes
1978–79	293	955	40.2	823	335
1979–80	265	819	39.1	947	270
1980–81	320	826	58.3	1,096	338
1981–82	380	1,033	77.1	936	413
1982–83	408	879	100.6	1,292	301
1983–84p	382	1,221	91.9	920	n.y.a.

(*a*) Principally oaten and wheaten hay. (*b*) Principally from oats, barley, wheat and forage sorghum.

Lupins

Lupins are grown primarily as a grain crop, but grazing of standing crops and harvested stubble is also an important use. Because of their high protein content lupins are becoming increasingly important in livestock feed and for human consumption, particularly in some of the Asian countries.

There was a significant expansion in lupin production in recent years, particularly in Western Australia which is the major producer and exporter of lupins in Australia. Smaller quantities are also grown in New South Wales, Victoria and South Australia mainly for domestic use.

The value of lupin exports in 1983-84 was estimated at about $46 million, main markets being the EEC and Taiwan.

FARMSTOCKS OF CEREAL GRAINS, HAY AND SILAGE
('000 tonnes)

At 31 March	*Cereal grains*				
	Barley	*Oats*	*Wheat*	*Hay*	*Silage*
1978	463	819	760	3,928	709
1979	637	1,256	880	5,355	753
1980	542	1,207	815	4,872	722
1981	518	933	860	4,764	578
1982	628	1,356	832	4,941	502
1983	506	710	970	2,983	333

Tobacco

Tobacco is a summer-growing annual which requires a temperate to tropical climate, adequate soil moisture and frost-free period of approximately five months. In Australia, all tobacco is grown under irrigation. Because of specialised requirements, production is limited to areas with suitable soils and climate. The main centres of production are the Mareeba-Dimbulah districts of north Queensland and Myrtleford in north-eastern Victoria. Other areas where tobacco is grown include Bundaberg, Beerwah and Texas (Queensland) and Yetman and Coraki (New South Wales). All tobacco grown in Australia is of the flue-cured type except for small quantities of burley tobacco produced mainly in Victoria.

TOBACCO: AREA, PRODUCTION AND OVERSEAS TRADE

			Exports (value f.o.b.)		*Imports (value)*	
Year	*Area*	*Production (dried leaf)*	*Unmanufactured*	*Manufactured*	*Unmanufactured*	*Manufactured*
	'000 ha	'000 tonnes	$'000	$'000	$'000	$'000
1978–79	8.1	15.0	693	7,074	36,148	23,588
1979–80	7.5	15.1	4,161	9,138	42,394	25,234
1980–81	7.1	14.5	2,893	8,559	44,007	31,129
1981–82	6.6	13.3	2,080	8,551	46,268	23,187
1982–83	6.7	13.4	4,835	9,667	52,916	30,420
1983–84p	6.8	n.y.a.	2,435	12,173	58,938	31,424

Marketing. In 1965 the Commonwealth and State Governments agreed to a stabilisation plan which provided for an annual Australian tobacco leaf marketing quota of flue-cured tobacco and a guaranteed minimum average reserve price. The plan is administered by the Australian Tobacco Board, constituted under the Tobacco Marketing Act 1965 and is comprised of representatives of the Commonwealth Government, tobacco-growing States, growers and manufacturers.

Following a review by the Industries Assistance Commission of the tobacco industry in 1982, the government announced a new 5 year stabilisation scheme which began in 1984. The new scheme is designed to rationalise marketing arrangements in the industry. The scheme provides that the annual tobacco leaf quotas are adjusted in line with consumption, that manufacturers' stocks are reduced to a level equivalent to 13 months' consumption by 1988, and that prices be adjusted so as to significantly reduce the gap between Australian and World prices by 1990.

Hops

Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon trellises, from which they are later harvested. The green hops are kiln-dried and baled on the farm. The dried hops can be further processed at centralised processing establishments into pellets, extract or high density packs. The pelleted form constitutes the bulk of the exported hops.

The area planted to hops in Australia is about 1,300 hectares. Nearly 60 per cent of plantings are in Tasmania (confined to the Derwent, Huon and Channel areas in the southeast, the Scottsdale-Ringarooma district in the north east, and the Gun Plains in the northwest of the state). The other hop producing areas are the Ovens and King Valleys in Victoria and a small area near Manjimup in Western Australia.

Australian hop production is about 2,100 tonnes, approximately 50 per cent of which is used by domestic breweries, with the remainder being exported.

Mushrooms

Statistics of mushroom growing were collected for the first time in all States for the year ended 30 June 1975.

MUSHROOMS: AREA, PRODUCTION, GROSS VALUE AND IMPORTS

					Imports			
		Total production			*Dried*		*Canned or bottled*	
Year	*Area*	*Quantity*	*Gross value*	*Canned or bottled production*	*Quantity*	*Value f.o.b.*	*Quantity*	*Value f.o.b.*
	hectares	tonnes	$m	tonnes	tonnes	$'000	'000 litres	$'000
1978–79	53	7,806	14.7	5,718	88	964	3,738	4,723
1979–80	57	8,340	16.9	4,793	93	1,082	4,482	5,486
1980–81	56	8,265	18.5	3,743	93	1,140	5,864	7,120
1981–82	57	9,382	21.7	n.p.	120	1,478	6,413	8,454
1982–83	67	10,389	27.1	n.p.	58	895	5,845	8,447
1983–84p . . .	n.y.a.	n.y.a.	n.y.a.	n.p.	94	1,447	4,760	7,218

Livestock

Since 1861, annual enumerations of livestock have been made based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia at ten-yearly intervals from 1861 to 1971, and then from 1979 on in single years, are given in the following table.

LIVESTOCK: AUSTRALIA, 1861 TO 1984

('000)

Year	*Cattle*	*Sheep*	*Pigs*	*Year*	*Cattle*	*Sheep*	*Pigs*
1861	3,958	20,135	351	1951	15,229	115,596	1,134
1871	4,276	41,594	543	1961	17,332	152,679	1,615
1881	7,527	62,184	816	1971	24,373	177,792	2,590
1891	10,300	97,881	891	1979	27,112	134,222	2,301
1901	8,640	70,603	950	1980	26,203	135,985	2,518
1911	11,745	98,066	1,026	1981	25,168	134,407	2,430
1921	13,500	81,796	674	1982	24,553	137,976	2,373
1931	11,721	110,568	1,072	1983	22,478	133,237	2,490
1941	13,256	122,694	1,797	1984	21,846	138,625	2,478

While livestock numbers (particularly sheep) have increased substantially since 1861, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia.

Australia has suffered ten major widespread droughts since the keeping of rainfall records began:

1864–66 All States were affected except Tasmania.

1880–86 Southern and eastern mainland States were affected.

1888 All States were hit except Western Australia.

1895–1903 This drought, one of the worst on record, halved Australia's sheep population (originally 100 million) and cut cattle numbers (12 million) by 40 per cent.

1911–1916 Wheat crops were affected in most States, sheep numbers declined by 19 million and cattle by 2 million.

1918–1920 During this period parts of Western Australia were the only areas completely free from drought.

1939–1945 This prolonged drought affected crops and/or pastoral areas in all States. Sheep numbers fell from 125 million in 1942 to 96 million in 1945.

1965–1967 This drought, in its impact on Queensland, New South Wales and Victoria, ranked with the 1902 drought as one of the most severe on record. It resulted in a 40 per cent drop in the wheat harvest, a loss of 20 million sheep, and a decrease in farm income of $300-500 million. There was a chain reaction to other industries, with heavy losses being suffered by manufacturers of farm machinery, and the N.S.W. Railways. Effects of the drought were worsened by water rationing in irrigation areas.

1972 Widespread drought occurred throughout Australia.

Much of eastern Australia experienced one of the worst droughts on record in 1982 and early 1983. Widespread and soaking rains during the autumn months of 1983 greatly alleviated the situation and most areas received further good rains during 1983–84. By July 1984 only a few shires on the Central Queensland coast and in south east Tasmania remained under drought conditions and these were expected to be lifted soon.

For further details of droughts in Australia *see* Yearbook No. 54, pages 991-96 *'Droughts in Australia'*.

The years in which the numbers of livestock attained their peaks are as follows: cattle, 1976 (33,434,000); sheep, 1970 (180,080,000); and pigs, 1973 (3,259,000).

Cattle

Cattle-raising is carried out in all States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of dairy herds. While dairy cattle are restricted mainly to southern and to coastal districts, beef cattle are more widely distributed. Cattle numbers in Australia increased slowly during the 1960s and 1970s, despite seasonal vicissitudes and heavy slaughterings, to a peak of 33.4 million in 1976. Since then, there has been a continuous decline, aggravated by drought conditions, to 22.5 million in 1983. The relatively high proportion of breeding cattle slaughtered during the drought year of 1982 continued in 1983, despite improved seasonal conditions beginning in the autumn of 1983, thereby contributing to a further decline in the total herd to 21.8 million head by March 1984.

Beef cattle production is often combined with cropping, dairying and sheep. In the north (north of the 26th parallel), cattle properties and herd size are very large, pastures are generally unimproved, fodder crops are rare and beef is usually the only product. The industry is more intensive in the south because of the more favourable environment including more improved pasture.

For further details on cattle *see Livestock and Livestock Products, Australia* (7221.0).

CATTLE NUMBERS

('000)

31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust. (incl. A.C.T.)*
1979 . . .	6,484	4,134	10,859	1,086	2,092	657	1,785	27,112
1980 . . .	6,097	4,252	10,332	1,067	2,065	649	1,727	26,203
1981 . . .	5,459	4,313	9,925	1,091	2,034	659	1,675	25,168
1982 . . .	5,429	4,121	9,782	1,013	1,942	628	1,624	24,553
1983 . . .	5,018	3,408	9,349	828	1,754	562	1,548	22,478
1984p . . .	5,000	3,453	8,875	833	1,703	543	1,431	21,846

Classification of cattle

CATTLE NUMBERS, BY AGE, SEX, PURPOSE

('000)

	31 March					
Classification	*1979*	*1980*	*1981*	*1982*	*1983*	*1984p*
Milk cattle—						
Bulls used or intended for service	55	56	54	49	47	46
Cows, heifers and heifer calves	2,733	2,697	2,672	2,661	2,642	2,671
House cows and heifers	78	77	74	73	69	68
Total, dairy cattle	*2,867*	*2,830*	*2,799*	*2,783*	*2,757*	*2,787*
Meat cattle—						
Bulls used or intended for service	544	545	533	527	499	502
Cows and heifers (1 year and over)	11,774	11,727	11,269	11,032	9,929	9,784
Calves under 1 year	5,837	5,445	5,135	5,023	4,644	4,405
Other cattle (1 year and over)	6,090	5,656	5,431	5,188	4,649	4,368
Total, beef cattle	*24,245*	*23,373*	*22,368*	*21,770*	*19,721*	*19,059*
Total, all cattle	**27,112**	**26,203**	**25,168**	**24,553**	**22,478**	**21,846**

Sheep

With the exception of a short period in the early eighteen-sixties, when the flocks in Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising. Western Australia is the second largest sheep raising State followed by Victoria. Sheep numbers reached a peak of 180 million in Australia in 1970. They then declined rapidly up to March 1973 as producers turned off large numbers for slaughter and moved from wool-growing towards grain and beef production. By 1975, the numbers had again increased to 151,653,000, but in March 1978 the numbers had fallen to 131,442,000, the lowest since 1955. Improved seasonal conditions during 1978 and 1979 enabled producers to begin rebuilding their flocks. By March 1980, numbers had risen to 136.0 million. Subsequently, high levels of drought-induced slaughter led to a decline in numbers to 134.4 million by March 1981. Numbers rose to 138.0 million in March 1982 with improved seasonal conditions and the attractiveness of sheep enterprises relative to cattle contributing to the growth in numbers. Subsequently, drought conditions saw the flock reduce to 133.2 million in March 1983. The increase in flock numbers to 138.6 million in March 1984 reflects flock rebuilding by producers in response to favourable seasonal conditions beginning in the autumn of 1983, improved lambing rates, and a favourable outlook for wool and live sheep enterprises.

SHEEP NUMBERS
(Millions)

31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust. (incl. N.T., A.C.T.)*
1979	48.4	22.8	13.6	14.9	30.3	4.2	134.2
1980	48.6	24.4	12.2	16.0	30.4	4.2	136.0
1981	46.0	25.5	10.6	17.1	30.8	4.4	134.4
1982	48.7	25.3	12.3	16.7	30.3	4.5	138.0
1983	48.1	22.7	12.2	15.4	30.2	4.5	133.2
1984p	51.0	24.4	12.9	16.1	29.5	4.6	138.6

SHEEP, BY AGE AND SEX
(Millions)

	Sheep: 1 year and over				*Lambs and hoggets (under 1 year)*	*Total, sheep and lambs*
31 March	*Rams*	*Breeding ewes*	*Other ewes*	*Wethers*		
1979	1.7	65.9	4.7	31.6	30.4	134.2
1980	1.7	66.5	5.0	30.5	32.3	136.0
1981	1.8	66.9	4.8	30.1	30.8	134.4
1982	1.8	68.5	4.8	30.5	32.4	138.0
1983	1.7	65.6	5.5	28.8	31.6	133.2
1984p	1.7	69.8	5.0	30.4	31.7	138.6

The combined value of wool and sheep slaughtered during 1983-84 is estimated (by the Bureau of Agricultural Economics) at 18% of the gross value of agricultural commodities. This proportion varies with wool and meat prices and seasonal conditions. Australia has about 20 per cent of the world's woolled sheep but produces around 25 per cent of the world's greasy wool output. In addition, in 1983–84 the sheep industry produced 436,500 tonnes of mutton and lamb. Exports of live sheep for slaughter during 1983-84 totalled 7.2 million head, with Kuwait and Saudi Arabia accounting for 72% of the total.

SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS
(Millions)

Year ended 31 March	*Number at beginning of season*	*Lambs marked*	*Live sheep exports*	*Sheep and lambs slaughtered(a)*	*Estimated deaths on farms(b)*	*Number at end of season*
1979	131.4	42.5	3.7	26.9	9.1	134.2
1980	134.2	45.8	5.3	30.2	8.5	136.0
1981	136.0	43.7	6.1	31.4	7.8	134.4
1982	134.4	44.8	6.3	28.3	6.6	138.0
1983	138.0	45.4	6.2	30.8	13.1	133.2
1984p	133.2	44.2	6.7	23.7	8.4	138.6

(*a*) Comprises statistics from abattoirs and other major slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers; also includes animals condemned or those killed for boiling down. (*b*) Balance item.

LAMBING

Year ended 31 March	*Number of breeding ewes at start of season*	*Mating intentions at start of season*	*Actual matings*	*Ratio of actual matings to intended matings*	*Lambs marked*	*Ratio of lambs marked to actual matings*	*Ratio of lambs marked to breeding ewes*
	million	million	million	per cent	million	per cent	per cent
1979	63.6	58.5	57.1	98	42.5	74	67
1980	65.9	61.9	59.5	96	45.8	77	70
1981	66.5	60.3	58.1	96	43.7	75	66
1982	66.9	61.9	60.5	98	44.8	74	67
1983	68.5	64.6	60.9	94	45.4	74	66
1984p	65.6	58.9	58.1	99	44.2	76	67

Pigs

Until the early 1950s the majority of pigs were reared in dairy areas where the on-farm separation of cream, associated with butter production, provided an abundant supply of skim milk; a traditional cheap and nutritious pig feed. With the virtual disappearance of on-farm cream separation and the introduction of wheat delivery quotas and generally low grain prices in the late 1960s, pig raising became increasingly associated with grain growing areas. Today most pigs are raised under intensive or semi-intensive conditions in large scale piggeries and fed on grain based rations. Pig numbers have remained fairly stable over the past decade, although there has been a decrease in the number of holdings raising pigs as pig production becomes more specialised.

PIG NUMBERS
('000)

31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust. (incl. N.T., A.C.T.)*
1979	759	390	487	330	271	61	2,301
1980	829	422	510	398	293	63	2,518
1981	787	400	502	394	289	54	2,430
1982	766	406	513	374	263	47	2,373
1983	794	387	551	405	300	43	2,490
1984p	809	375	552	402	289	48	2,478

For further details on pigs *see* the publication *Livestock and Livestock Products, Australia* (7221.0).

Poultry

The commercial poultry industry comprising hatcherymen, egg producers and broiler growers is highly specialised although there is still a proportion of production coming from 'backyard' egg producers roughly estimated at from 20 to 25 per cent of the total. There are also separate research schemes funded jointly by industry and government for the egg and meat chicken industries but close liaison exists. Both sectors are good examples of the general movement towards specialised, large scale, capital-intensive production which is common to many agricultural industries.

POULTRY NUMBERS(*a*)
('000)

	Chickens			*Other poultry*			
31 March	*Hens and pullets for egg production*	*Meat strain chickens (broilers)*	*Total chickens(b)*	*Ducks*	*Turkeys*	*Other poultry*	*Total all poultry*
1979	16,189	26,825	43,214	247	448	321	44,229
1980	14,846	29,967	46,749	272	1,016	218	48,255
1981	15,187	29,077	46,386	228	750	175	47,539
1982	14,930	27,478	44,761	317	713	213	46,004
1983	15,532	30,296	48,389	294	467	243	49,393
1984p	14,643	31,008	47,982	364	628	240	49,214

(*a*) Data are for numbers of poultry on agricultural establishments as reported in the annual Agricultural Census-
(*b*) Includes breeding stock and data not available for separate publication.

For further details on poultry *see* the publication *Livestock and Livestock Products, Australia* (7221.0).

Meat production, slaughterings and other disposals

The ABS collects details of slaughterings and meat production from abattoirs, commercial poultry and other slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers. The data relate only to slaughterings for human consumption and do not include animals condemned or those killed for boiling down.

PRODUCTION OF MEAT BY TYPE(*a*)
('000 tonnes)

	Carcass weight						*Dressed weight*(*b*)	
Year	*Beef*	*Veal*	*Mutton*	*Lamb*	*Pig meat*	*Total meat*	*Chickens*	*Total all poultry*(*c*)
1978–79	1,948	71	239	253	199	2,708	244	271
1979–80	1,510	54	275	272	218	2,330	282	313
1980–81	1,418	50	299	279	233	2,278	276	303
1981–82	1,526	50	234	277	228	2,315	253	279
1982–83	1,481	61	250	280	239	2,312	283	313
1983–84p	1,260	40	155	281	251	1,988	267	293

(*a*) Excludes offal. (*b*) Dressed weight of whole birds, pieces and giblets. (*c*) Includes other fowls, turkeys, ducks and drakes.

PRODUCTION OF MEAT : AUSTRALIA, 1939-40 TO 1983-84

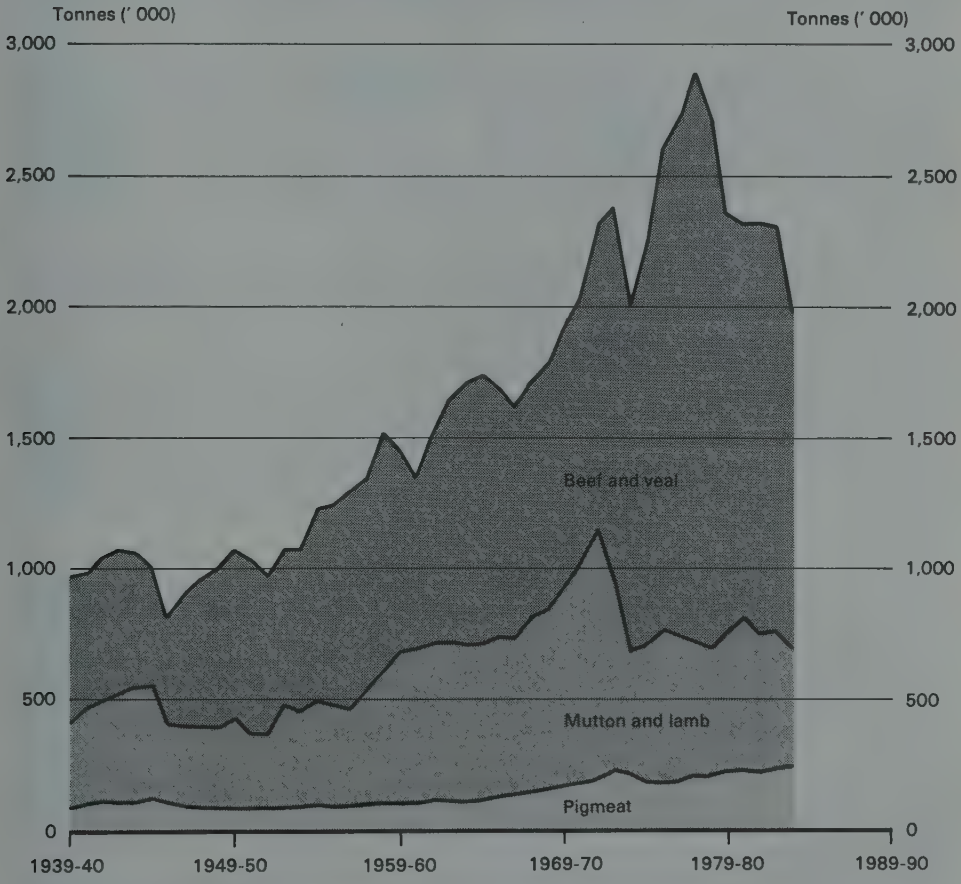

PLATE 39

NUMBERS OF LIVESTOCK AND POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION
(Million head)

Year	Cattle	Calves	Sheep	Lambs	Pigs	Chickens (*a*)	Other fowls (*b*) and turkeys	Ducks and drakes
1978 79	9.5	1.8	12.0	14.8	3.6	191.2	10.8	1.8
1979 80	7.4	1.5	14.1	16.4	3.9	222.5	11.3	2.2
1980 81	7.0	1.5	15.2	16.6	4.2	221.7	11.2	1.7
1981 82	7.2	1.5	11.9	16.3	4.1	204.0	9.9	2.0
1982 83	7.4	1.7	13.1	16.9	4.2	226.2	10.9	1.9
1983 84p	5.8	1.2	7.7	16.2	4.4	212.9	10.3	1.7

(*a*) Comprises broilers, fryers and roasters. (*b*) Comprises hens, roosters, etc.

Mutton and Lamb

Production of sheepmeats in Australia is closely associated with the wool industry. Sheep grazing often occurs on mixed farms in conjunction with beef and/or grain enterprises and in some areas producers specialise in lamb production. The supply of sheepmeat depends greatly on seasonal conditions, decisions to build up or reduce flock numbers, expectations of wool prices, live sheep exports and the pattern of domestic consumption of meat.

There was a movement out of sheep raising in Australia early in the 1970s principally as a result of low wool prices and many producers diversified into cattle and grains. Flock numbers declined from a peak of 180 million in 1970 to a low of 131 million by 1978. After 1978, wool and sheepmeat prices improved and the trade in live sheep for slaughter overseas continued to expand. As a result the national flock size increased slightly to 136 million by March 1980. Since March 1980, flock numbers have fluctuated as a result of climatic and market conditions peaking at 138.0 million in March 1982, before dropping to 133.2 million in March 1983. Total Australian sheep flock in March 1984 is estimated at 138.6 million head.

Sheepmeat production declined rapidly from the high levels of the early 1970s, which were associated with flock reduction, to annual levels of between 400,000 and 600,000 tonnes from 1973–74. Lamb production has remained close to 280,000 tonnes per year, while mutton production has varied between 230,000-300,000 tonnes in recent years until 1983–84, when it declined to 155,000 tonnes, reflecting low turn-off of sheep and flock rebuilding by producers.

A high proportion of lamb is consumed in Australia with per capita consumption remaining steady at about 14-16 kilograms per year. A high proportion of mutton produced is exported. Australia is the world's largest exporter of mutton, with Japan and the Middle East being the main markets.

Live sheep exports for slaughter during 1983–84 totalled 7.2 million head, equivalent to approximately 162,000 tonnes of carcass mutton. During 1982 -83 live sheep exported for slaughter totalled 6.9 million head, equivalent to approximately 155,000 tonnes of carcass mutton.

Beef and Veal

The cattle industry is very dependent on international trade in beef and is subject to great fluctuations. Over half of Australia's beef and veal production is exported, with the U.S.A., Japan and South Korea currently the main outlets.

Beef and veal production in Australia rose markedly in the seventies, reaching peak levels of over 2 million tonnes in 1977–78 and 1978–79, but declining to 1.5 million tonnes in 1982–83. The increase in production followed the rapid expansion of the beef herd that had occurred during the late sixties and early seventies mainly in response to relatively profitable beef prices and increased demand from overseas markets.

In the mid 1970s, poor economic conditions and heavy domestic supplies of beef in major importing countries led them to impose severe restrictions on their imports. With reduced international demand and heavy supplies in Australia, saleyard prices fell greatly and remained low for about four years. The depressed conditions were accompanied by a severe reduction in the national herd.

Improved seasonal conditions during 1983, accompanied by strengthening overseas demand, resulted in a move towards herd rebuilding. However, the high level of drought induced slaughterings during 1982 had reduced the breeding herd base implying very slow herd expansion until 1986. Beef and veal production declined to 1.3m tonnes in 1983–84. The decline in production reflects a move towards herd rebuilding by producers. Cattle numbers are currently projected by the AMLC to steadily increase throughout the 1980s. The lower levels of slaughter accompanying the rebuilding process suggest only modest increases in the levels of beef and veal production in coming years. Export demand for beef during 1983–84 remained relatively weak. However, saleyard prices of cattle firmed due to strong competitive demand between graziers and cattle fatteners for a limited supply of cattle. During the second half of the year, downward pressure on saleyard prices from a further weakening of export demand was offset by a strengthening of the US dollar relative to the Australian dollar.

Pigmeat

Significant changes have taken place in the pig producing industry in recent years. Capital investment and corporate takeovers have seen the emergence of three large companies producing 30% of all pigs sold in Australia. These moves on top of the trend to more intensive and efficient production techniques has seen pigmeat production rise steadily since 1975 to reach 251,000 tonnes in 1983-84. In addition, there has been an increase in the slaughter weights of pigs reflecting an increased interest in heavier pigs in the fresh pork trade.

Approximately 65 per cent of production is processed into bacon, hams and smallgoods, the rest is sold as fresh pork. Slightly over 1 per cent of the industry's output is currently exported. The increasing production of pigmeat therefore reflects a steady increase in per capita domestic consumption over the past five years.

Prices paid for pigs at auction have varied quite markedly in recent years. During 1982 they reached quite satisfactory levels but fell dramatically during 1983. The first half of 1984 has seen prices firming and steadily increasing but they still have a long way to go to reach the 1982 levels.

Poultry meat

The poultry meat industry developed rapidly in the 1970s with both output and consumption rising steeply although in recent years production has exceeded demand and excess production capacity in the industry continues. Genetic and technical improvements and the organisation of the industry into large-scale enterprises have raised efficiency and helped to reduce production costs relative to other meats. The price competitiveness of chicken meat compared with other meats, especially beef, continues to improve, consolidating the position of poultry meat as the second most important meat after beef in Australian diets.

EXPORTS OF FRESH, CHILLED OR FROZEN MEAT

Year	*Beef*	*Veal*	*Mutton*	*Lamb*	*Pork*	*Poultry*
			QUANTITY (*a*) ('000 tonnes)			
1978–79	1,193.7	23.0	169.2	46.5	1.9	6.7
1979–80	846.6	17.4	182.1	49.6	1.9	7.3
1980–81	753.7	13.6	241.5	39.4	2.4	7.7
1981–82	775.2	8.5	154.6	32.1	1.5	4.1
1982–83	817.2	10.1	201.1	36.9	1.8	2.2
1983–84	653.1	5.4	90.8	33.1	2.0	1.2
			VALUE f.o.b. ($ million)			
1978–79	1,339.2	26.6	135.2	52.0	3.1	8.0
1979–80	1,295.6	31.9	172.6	62.4	3.7	10.6
1980–81	1,086.4	22.9	248.2	62.3	5.7	12.1
1981–82	1,009.8	14.4	155.3	50.7	3.1	7.3
1982–83	1,164.8	17.9	167.1	61.1	5.4	4.4
1983–84p	1,101.7	11.9	84.0	53.3	6.2	2.5

(*a*) Quantity data on beef, veal, mutton and lamb exports are shown in carcass weight equivalents.

Exports of live animals

During the 1970s exports of live sheep to the Middle East for slaughter have substantially increased from 762,000 in 1971–72 to 7.2 million in 1983–84. Kuwait and Saudi Arabia accounted for 72 per cent of the total. Iran, a one time major importer of Australian live sheep (ranging 1.2 million to 2.9 million between 1976–77 and 1980–81) has made no purchases from Australia since 1980–81, preferring to import carcass mutton instead.

Australian exports of live cattle for breeding or slaughtering purposes totalled 74,857 head during 1983–84, compared with 81,793 head the previous year. The substantial decline in the export level of slaughter cattle to 31,137 head (from 55,743 head), was offset by increased exports of breeding cattle to a level of 43,720 head (from 26,050 head) destined mainly for South Korea. The decline in the level of slaughter cattle exported is due to a reduction in exports to Malaysia (15,188 head to 8,282 head) and South Korea (15,645 head to 3,455 head), which together accounted for 60 per cent of total breeding and slaughter cattle exported. South Korea has switched from importing slaughter cattle to that of breeding cattle in a bid to increase its level of self-sufficiency in meat production. During 1983–84 exports of breeding cattle to South Korea rose to 33,184 head (from 9,217 head in 1982–83), comprising 76 per cent of total breeding cattle exported.

For details of the regulation governing the export (and import) of live animals *see* Year Book No. 61 page 848.

EXPORTS OF LIVE ANIMALS

	Livestock			*Poultry*		
		Total(a)			*Total*	
Year	*Sheep and lambs*	*Number*	*Value f.o.b.*	*Day old chicks*	*Number*	*Value f.o.b.*
	—'000—		$'000	—'000—		$'000
1978–79	3,865	3,955	110,611	448	624	626
1979–80	6,162	6,225	192,668	409	710	747
1980–81	5,740	5,842	208,483	862	974	832
1981–82	6,009	6,112	214,886	809	935	720
1982–83	6,992	7,086	212,277	370	415	565
1983–84p	6,257	6,342	226,182	477	566	693

(*a*) Also includes cattle, calves, buffaloes and pigs.

PRODUCTION AND EXPORT OF BACON, HAM AND CANNED MEAT

	Production			*Exports*			
	Bacon and ham(a)			*Bacon and ham(c)*		*Canned meat(d)*	
Year	*Bone-in*	*Bone-out*	*Canned meat(b)*	*Quantity*	*Value*	*Quantity*	*Value*
	tonnes	tonnes	tonnes	tonnes	$'000 f.o.b.	tonnes	$'000 f.o.b.
1978–79	18,545	51,682	44,775	564	1,734	25,202	45,197
1979–80	18,147	52,811	39,178	861	2,734	21,581	51,552
1980–81	18,878	55,564	36,431	528	1,991	17,400	42,139
1981–82	18,112	57,818	34,590	523	1,959	19,651	50,461
1982–83	17,051	55,634	n.a.	412	1,769	21,587	58,704
1983–84p	17,973	59,023	n.a.	774	1,794	17,842	54,806

(*a*) Production of bacon and ham 'on the bone' is shown in terms of 'bone-in' weight, while production of boneless bacon and ham is shown in terms of 'bone-out' weight. Production of canned bacon and ham, which is reported in terms of 'stated net weight of packs', is included in the 'bone-out' category. (*b*) Canned weight. Includes bacon, ham and meat and vegetables, but excludes rabbit, poultry and baby foods. (*c*) Cured carcass weight of smoked or cooked bacon and ham. Includes 'stated net weight of packs' of canned bacon and ham. (*d*) Canned weight; excludes canned bacon and ham.

GROSS VALUE OF LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(*a*)
($ million)

Year	*Cattle and calves*	*Sheep and lambs*	*Pigs*	*Poultry*	*Total*
1978–79	2,154.6	445.1	253.8	244.2	3,097.7
1979–80	2,386.0	654.3	311.3	307.2	3,658.8
1980–81	2,056.5	718.9	337.5	361.4	3,474.3
1981–82	1,890.1	646.7	396.1	362.7	3,295.6
1982–83	2,079.4	574.3	415.5	420.4	3,489.6
1983–84p	2,039.5	561.9	385.7	404.2	3,391.3

(*a*) Includes adjustment for net exports of live animals.

Consumption

Owing to diverse cutting practices by butchers and because of the difficulty of clearly defining the term 'retail weight of meat', it is considered impractical to derive a satisfactory factor for the purpose of expressing estimated meat consumption in terms of retail weight. Depending on cutting practices employed and whether or not bones, etc. sold to customers are included in retail weight of meat, the following retail weights as a proportion of carcass weight are generally acceptable: beef, 60 per cent to 75 per cent; mutton and lamb, 80 per cent to 95 per cent; pork 90 per cent to 95 per cent.

APPARENT CONSUMPTION OF MEAT AND MEAT PRODUCTS AS HUMAN FOOD

Year	*Beef and veal*	*Mutton*	*Lamb*	*Pigmeat(a)*	*Offal*	*Total meat*	*Poultry meat*
				TOTAL ('000 tonnes)			
1978–79	840	62	203	193	73	1,371	271
1979–80	691	69	226	205	59	1,250	295
1980–81	695	73	234	231	64	1,299	301
1981–82	763	55	245	224	68	1,355	294
1982–83	711	70	247	230	69	1,326	311
1983–84p	629	66	247	251	66	1,257	296
				PER CAPITA PER YEAR (kg)			
1978–79	58.2	4.3	14.1	13.4	5.1	95.0	18.8
1979–80	47.3	4.7	15.5	14.0	4.0	85.6	20.2
1980–81	46.9	4.9	15.8	15.6	4.3	87.7	20.3
1981–82	50.7	3.7	16.3	14.9	4.5	90.0	19.6
1982–83	46.5	4.6	16.2	15.1	4.5	86.8	20.4
1983–84p	40.9	4.3	16.1	16.3	4.3	81.8	19.3

(*a*) Includes pigmeat products such as bacon and ham.
NOTE: Beef, veal, mutton, lamb, pigmeat and offal are expressed in terms of carcass weight, and poultry meat in dressed weight.

For further details on meat production and slaughtering *see* the following publications: *Livestock and Livestock Products, Australia* (7221.0), *Value of Agricultural Commodities Produced, Australia* (7503.0) and *Apparent Consumption of Foodstuffs and Nutrients, Australia* (4306.0).

Australian Meat and Livestock Corporation

Legislation was enacted to establish the Australian Meat and Live-stock Corporation from 1 December 1977. The Corporation, which regulates and promotes the export of both meat and livestock and the promotion of domestic consumption, replaced the Australian Meat Board.

The Corporation has the power to trade in meat and livestock in a manner which accords with adopted policy and with normal commercial practice. Its power is also extended to engaging in sole trading or to permitting restricted trading by a specfied holder or holders of meat or livestock licences. The exercise of this sole or restricted trading power is limited to circumstances where: a monopoly buying power is, in the Corporation's opinion, distorting normal market forces; such action is necessary or desirable to ensure that producers receive a fair return for the meat or livestock exported to that market; the exercise of sole trading powers would be beneficial for the development or further development of that market; the exercise of sole trading powers would be in the best commercial interests of the industry.

In order to foster consultation, the Corporation may, for the purposes of considering any matter relating to the performance of its functions, make arrangements for consulting persons and bodies representative of different sectors of the industry.

The Corporation's main functions are: to improve the production of meat and livestock in Australia; to encourage and promote the consumption and sale of Australian meat, and the sale of Australian livestock, both in Australia and overseas; and to encourage, assist, promote and control the export of meat and livestock from Australia.

Exporters of meat and livestock are licenced by the Corporation and have to comply with its requirements in relation to export trading. The Corporation assists exporters in overseas market development and conducts meat promotion activities in Australia and abroad. It has authority also, to perform a wide range of other functions aimed at improving the production of meat and livestock for the general benefit of the meat and livestock industry.

Australian Meat and Live-stock Industry Policy Council, Australian Meat and Live-stock Industry Selection Committee

The Government is in the process of implementing a number of reforms to the meat industry structure in Australia. The essential elements of the package are the re-structuring of the Australian Meat and Live-stock Corporation and the creation of two new bodies. The Australian Meat and Live-stock Industry Policy Council will be established to advise the Government on important policy questions, and the Australian Meat and Live-stock Industry Selection Committee has been established to select and nominate suitable persons for appointment by the Minister to the Board of the Corporation.

Wool

The Australian Sheep Flock contains nearly 20 per cent of the world's sheep, and produces over 26 per cent of the total annual production of wool. Approximately 75 per cent of the Australian Flock are of a single breed, the Merino, raised primarily for its heavy fleeces of fine quality wool.

Wool production

Wool as shorn from the sheep ('greasy wool') contains an appreciable amount of grease, dirt, vegetable matter and other extraneous material other than the clean wool fibre. The exact quantity of these impurities in the fleece varies between countries, differing climatic and pastoral conditions, with seasonal fluctuations and with the breed and condition of the sheep. It is, however, the clean wool fibre that is ultimately consumed by the textile industry and the term 'clean yield' is used to express the net wool fibre content present in greasy wool.

Since the 1946–47 season, the average clean yield of Australian wool has been assessed annually. In the early years, the average clean yield was assessed on the basis of a small number of tests and subjective appraisal but in recent years the Australian Wool Corporation has calculated the clip average yield on the basis of laboratory tests of yield applied to nearly all wool offered for sale at auction in Australia. During the period of assessment the clean yield showed a continuous rise up to 1951–52, when it reached 57.5 per cent. It was 63.22 per cent in 1983–84.

Wool scoured and carbonised in Australia before export, however, has a somewhat lower clean yield than the whole clip, because much of the greasy wool treated locally for export in this form is dirty low-grade wool. The quantity of scoured and carbonised wool exported during 1983–84 was about 11 per cent of total raw wool exports in greasy terms. For the clean yield of Australian scoured wools exported a standard factor of 93 per cent has been adopted.

The following table shows details of total wool (i.e. shorn, dead, fellmongered and exported on skins) as well as the numbers of animals shorn, the average fleece weight and the gross value of the wool. A graph showing the production of wool in relation to the number of sheep appears on page 291.

SHEARING, WOOL PRODUCTION AND VALUE

			Wool production			
					Total wool	
Year	*Sheep and lambs shorn*	*Average fleece weight*	*Shorn wool*	*Other wool(a)*	*Quantity*	*Gross value (b)*
	million	kg	'000 tonnes	'000 tonnes	'000 tonnes	$m
1978–79	146.9	4.38	643.6	60.6	704.3	1,374
1979–80	148.5	4.33	642.4	66.1	708.5	1,651
1980–81	150.0	4.25	637.9	63.3	701.2	1,670
1981–82	155.2	4.26	660.9	56.2	717.2	1,789
1982–83	149.1	4.30	641.5	60.2	701.7	1,761
1983–84p	151.9	4.43	673.0	55.2	728.1	2,003

(*a*) Comprises dead and fellmongered wool, and wool exported on skins. (*b*) Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

The wool market

The principal method used by wool growers in selling their wool is through public auction. Individual wool growers consign their clips to one of a number of wool selling brokers who arrange for it to be stored, and sampled for laboratory specification, and who make arrangements for the wool to be valued and offered at a rostered sale.

The proportion of the clip sold at auction varies from year to year but is in the order of 80 per cent of all wool grown. It is at such sales that the Australian Wool Corporation provides reserve price support. For the remaining 20 per cent, a transaction price is agreed between buyer and seller and the sale concluded without the presence of other parties and without the protection of the Reserve Price Scheme. This selling option has greatest following in Western Australia while New South Wales, Victoria and South Australia are also strong supporters of this selling system.

SHEEP NUMBERS AND WOOL PRODUCTION : AUSTRALIA, 1880 TO 1984

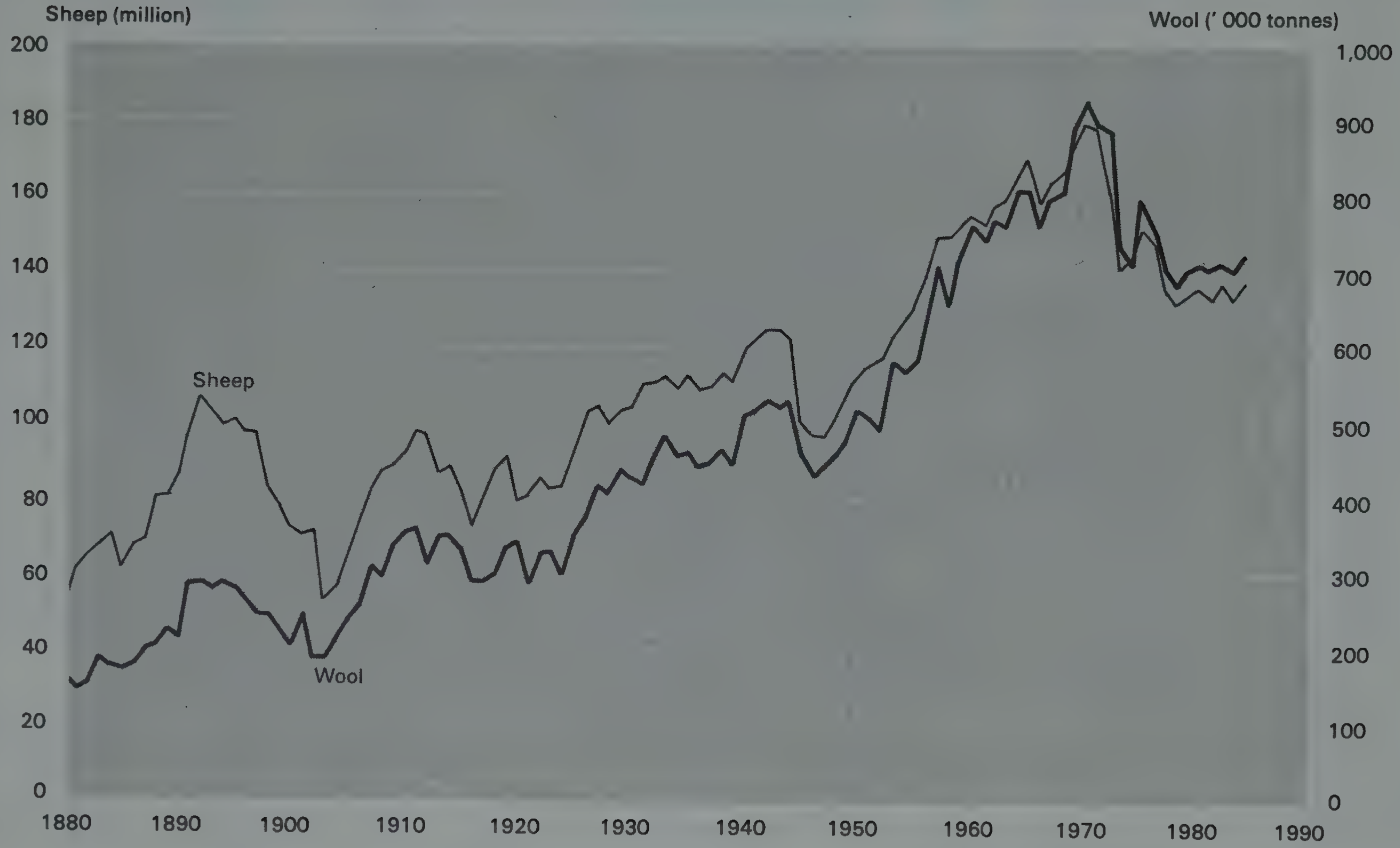

PLATE 40

Wool receivals

Under the terms of the Wool Tax Acts, all growers pay a tax on the gross value of first hand wool sales, to provide financial backing for wool promotion, research and the operation of a statutory Reserve Price Scheme. The ABS collects details of the total amounts of taxable wool received by wool selling brokers and dealers each year. These figures exclude wool received by brokers on which tax had already been paid by other dealers (private buyers) or brokers.

TAXABLE WOOL RECEIVALS

Year	*Receivals* *Brokers (NCWSB)*	*Dealers(a)*	*Brokers and dealers*	*Dealers as per cent of total receivals*	*Shorn wool production(b)*
	—'000 tonnes—			per cent	'000 tonnes
1978–79	481.4	164.8	646.2	25.5	643.6
1979–80	483.1	175.2	658.2	26.6	642.4
1980–81	523.8	134.2	658.0	20.4	637.9
1981–82	539.0	141.4	680.4	20.8	660.9
1982–83	516.0	141.2	657.2	21.5	641.5
1983–84p	545.9	151.7	697.6	21.7	673.0

(*a*) Includes brokers who are not members of the National Council of Wool Selling Brokers of Australia (NCWSB). (*b*) Obtained from the annual Agricultural Census.

Wool marketing arrangements

The Australian Wool Corporation (AWC), a Commonwealth statutory authority, established on 1 January 1973 through the amalgamation of the former Australian Wool Commission and Australian Wool Board, performs a number of functions within the market aimed at encouraging the demand for Australian wool and assisting the efficient and orderly disposal of the national clip. Central to these activities is a Reserve Price Scheme, operated by the Corporation on behalf of the woolgrowing industry. This scheme was introduced with the formation of the Australian Wool Commission in November 1970. Its purpose is to provide a measure of stability in wool prices to the benefit of the industry.

Initially, the Reserve Price Scheme was operated on a flexible basis whereby the Commission, and later the Corporation, bought wool which failed to reach a reserve price determined on a day-to-day basis. Since September 1974, as part of the reserve price program, the Corporation has been authorised to operate a floor price scheme. Under the floor price arrangements the Government sets a minimum average price for wool at the beginning of each season, expressed in terms of the Australian Wool Corporation's Market Indicator, or clip average clean price. The Corporation sets minimum prices for each wool type based on the Government's indicator floor price and purchases wool at auction which does not attract bids above the level of the appropriate floor price for that type. The Corporation has, from time to time in the past, operated a flexible reserve price scheme above the level of the floor price to prevent 'pot-holes' in the market. The wool purchased by the Corporation is held in stock, some of it in Australia and some overseas, and sold when prices improve with a view to stabilising the market.

In order to finance losses arising from the Corporation's reserve price activities woolgrowers have, since September 1974, been paying 5 per cent of gross proceeds from the sale of wool into a special Corporation administered fund called the Market Support Fund.

When the Fund was established, wool demand was extremely depressed. However, the market improved in subsequent years and the level of the Fund rose to about $493 million at the end of 1980-81. This balance was well in excess of requirements for market support purposes and the Government agreed to woolgrowers' strong requests for legislation to allow for a progressive return of contributions paid into the Fund. Since June 1981, three separate annual refunds totalling $137 million have been made to woolgrowers from the Fund, in respect of market support contributions paid in the years 1974-75 to 1976-77. Depressed market conditions prevailing during the latter part of the 1983-84 season, make it unlikely that a further refund will be made from the Fund in 1984-85.

The Australian Wool Corporation has other responsibilities which include participation in negotiations in respect of shipping freight rates, administration of wool stores and the encouragement of greater efficiency within the existing wool marketing system.

Wool testing

The Australian Wool Testing Authority came into existence in 1957 but its role became more prominent with the introduction, in 1971, of wool valuation techniques relying on objective specification of wool's main physical characteristics. From the first sales of wool in this manner in the early 1970's this technique has achieved universal acceptance and now more than 90 per cent of all wool sold at auction is accompanied by certified measurements for yield, (i.e. the amount of clean wool fibre), average fibre diameter and the percentage and type of vegetable fault.

At the direction of the Commonwealth Government the Authority which had operated as a division of the Corporation, was transferred to the private sector, effective from the beginning of July 1982. The new company is known as AWTA Ltd.

Wool promotion

The Australian Wool Corporation is responsible for the promotion of the greater use of wool in Australia while the International Wool Secretariat (IWS) is responsible for wool promotion overseas. The cost of promotion is shared by the Government and the woolgrowing industry. The woolgrowers' contribution for promotion is raised by means of a tax on wool sale proceeds which is currently at the rate of 2.5 per cent (part of a total 3 per cent levy used to finance both wool research and promotion). The Commonwealth's contribution to wool promotion for five years commencing 1983-84 has been set at 1.2 per cent of gross wool sales revenue. This is expected to result in a Government contribution of around $26 million in 1984-85. Most of the promotion funds are remitted to the IWS with headquarters in London. Australia provides approximately two thirds of the IWS budget.

Wool research

The wool research program covers five broad areas; research into wool production, wool harvesting and distribution, and economic and textile research. Wool research activities funded from the Wool Research Trust Fund (WRTF) are financed by growers and the Government on a 50:50 basis with the growers' contribution raised by means of a 0.5 per cent levy on wool sale proceeds (part of the total 3 per cent levy mentioned above). In addition to the wool research which is funded in this manner the CSIRO and the Bureau of Agricultural Economics carry out considerable additional wool research which is funded from Consolidated Revenue.

Wool income

Fluctuations in wool prices have a marked effect on agricultural and national income. In 1945–46 the gross value of wool production was $117.2 million, representing 17.4 per cent of the gross value of all agricultural commodities produced, while in 1950–51, when prices reached a peak during the Korean War, wool was valued at $1,303.8 million, or 55.6 per cent of total agricultural industries. More recent figures for the contribution of wool income to total agricultural production and national exports reflect the growth in other commodities over the intervening years, rather than a decline in the fortunes of the wool industry.

Year	*Value of wool as a per cent of total agriculture*	*Value of wool exports as a per cent of total Australian exports*
1978–79	13.4	11.2
1979–80	14.0	9.2
1980–81	14.4	10.1
1981–82	14.1	9.8
1982–83	15.8	7.8
1983–84p	13.4	8.7

Stocks

Stocks shown below of raw and semi-processed wool were held by wool processors, scourers, fellmongers, brokers, dealers and the Australian Wool Corporation. They exclude wool on skins since this wool is not recorded as production until fellmongered in Australia or exported on skins.

WOOL STOCKS
('000 tonnes)

	Stocks of—					
	Raw Wool		*Semi-processed wool*		*Total wool*	
At 30 June	*Greasy*	*Clean*	*Greasy*	*Clean*	*Greasy*	*Clean*
1978	222.0	132.2	8.7	5.2	230.7	137.4
1979	162.0	96.4	9.1	5.5	171.0	101.9
1980	168.7	101.1	11.3	6.9	180.1	108.0
1981	153.2	91.6	10.8	6.5	163.9	98.1
1982	206.4	124.5	8.3	5.0	214.6	129.5
1983	—n.a.—				256.8	153.7

Wool processing

Approximately 85 per cent of all wool passing through the Australian auction system comprises combing fleece and oddment types which are ultimately processed on the worsted system. The remaining 15 per cent, being the shorter or carding wools such as locks, crutchings, and lambs wool, is directed to the woollen system. This latter group is boosted some 5-10 per cent by noils combed out during worsted processing.

At present about two thirds of total carding types produced are processed in Australia.

During the 1970's there was a trend to increased early stage processing of Australian wool before export. Recently, however, early stage processing has stabilised at around 18 per cent of wool production. Over 95 per cent of total Australian wool production ultimately enters international trade.

The main scope for expanded domestic processing remains with worsted types for export in scoured or combed top form. Japanese processors initiated the export of scoured worsted types from Australia and Japan became Australia's major export market for scoured wool in 1973-74.

Within Australia, in 1980-81 there were 28 operating establishments involved in early stage processing. Before 1975 the wool processing industry was largely centralised in cities close to major ports. Since then, however, a general trend towards decentralised inland locations has occurred.

Wool consumption

Two series of calculations on Australian wool consumption are shown below.

1. Consumption of raw wool, which measures consumption in terms of scoured wool used by mills.
2. Consumption of processed wool, which is calculated from the usage of woollen and worsted yarn.

Raw wool comprises greasy, slipe, scoured and carbonised wool. This series has been included for comparison purposes with other countries.

This second series is considered to be a more satisfactory measure of Australian wool consumption, principally because allowance is made for significant quantities of wool tops exported. However, both series relate to consumption of wool by the wool textile industry, and should not be used as measures of consumption of wool at retail level. It has not been possible to estimate wool consumption at retail level because of the impracticability of obtaining reliable data concerning the wool content of the multiplicity of woollen and worsted piece-goods and finished articles exported and imported and held as stock by manufacturers, wholesalers and retailers.

CONSUMPTION OF RAW AND PROCESSED WOOL
('000 tonnes)

	Consumption of raw wool		*Consumption of processed wool*					
			Worsted yarn used (a)		*Woollen yarn used (b)*		*Total*	
Year	*Greasy*	*Clean*	*Greasy*	*Clean*	*Greasy*	*Clean*	*Greasy*	*Clean*
1977-78	47.5	28.0	11.9	6.9	14.2	8.7	27.3	16.2
1978-79	51.0	30.0	11.9	6.8	14.7	9.0	27.7	16.4
1979-80	56.1	30.9	12.4	6.7	15.8	9.0	29.3	16.3
1980-81	51.6	30.7	8.8	5.2	14.7	9.1	24.7	14.8
1981-82	47.7	30.0	8.0	4.9	14.8	9.7	23.9	15.1
1982-83	51.2	32.2	8.2	5.1	12.4	8.1	21.8	13.7

(*a*) Wool content of yarns containing a mixture of wool and other fibres. (*b*) Comprises pure and mixed woollen yarn.

Exports of wool

From its earliest days the Australian wool industry has been export oriented, and today approximately 95 per cent of total annual production of wool is exported.

The great bulk of this leaves the country in its natural 'greasy' state, but increasing quantities are being exported in part processed forms (i.e. scoured, carbonised, top and noil) and as wool on skins.

EXPORTS OF WOOL

Year	Selected exports ('000 tonnes: greasy basis)			Total exports	
	Greasy and slipe	*Scoured and carbonised*	*Exported on skins*	*Greasy basis (a)*	*Value f.o.b.*
				'000 tonnes	$m
1978–79	568.4	89.0	54.6	731.9	1,592
1979–80	505.3	93.2	59.5	681.4	1,744
1980–81	531.7	105.5	57.0	718.5	1,932
1981–82	497.6	96.4	59.8	679.1	1,920
1982–83	487.3	85.0	54.8	653.0	1,878
1983–84p	497.8	99.6	49.7	672.7	2,069

(*a*) Includes processed wool.

For further details on sheep shorn, wool production and overseas trade *see* the following publications: *Livestock and Livestock Products, Australia* (7221.0), *Sheep Numbers, Shearing and Wool Production Forecast, Australia* (7211.0), *Shearing and Wool Production Forecast, Australia (Preliminary)* (7210.0), *Livestock Products Australia* (monthly) (7215.0), *Foreign Trade, Australia* (5409.0, 5410.0), *Production Bulletin No. 4: Australia* (8360.0) and *Value of Agricultural Commodities Produced, Australia* (7503.0).

Dairying

Dairying occurs in all States in Australia but is mainly concentrated in the south-eastern region of the mainland, and in Tasmania, where rainfall is ample and fairly reliable. It is predominantly coastal, but has also developed inland in small areas close to population centres and, on a larger scale, in some irrigated regions in the Riverina of New South Wales and northern Victoria.

Australian dairy cattle have shown steady improvement in quality, as demonstrated by milk yield, over the years. This is attributable to improved breeding associated with herd recording; the use of artificial insemination; better feeding resulting from the use of improved pastures and supplementary feed; and better farming methods arising from the application of new management practices and the use of the latest technology; and a contraction of the industry to climatically more favourable areas. Typical of the developments which have occurred are the almost total change from on-farm separation and delivery of cream to the collection of whole milk by milk tankers from on-farm refrigerated milk vats and the introduction of Herringbone and Rotary type dairies on farms.

The manufacturing and processing sections of the industry are well advanced technologically and certain techniques and equipment developed in Australia are being used overseas. State Agricultural Departments give advice on the most suitable methods of production and inspect animals, buildings and production, so that the latest advances in technology are passed on to the farmer and that hygiene standards are maintained at a high level.

MILK CATTLE NUMBERS
('000)

31 March	Bulls used or intended for service	Cows and heifers used or intended for production of milk or cream for sale			House cows and heifers(*a*)
		Cows (in milk and dry)	Heifers		
			1 year and over	Under 1 year	
1979	55	1,921	442	369	78
1980	56	1,869	431	396	77
1981	54	1,819	460	393	74
1982	49	1,810	465	387	73
1983	47	1,792	460	390	69
1984p	46	1,794	478	399	68

(*a*) One year and over, kept for the establishment's own milk supply.

The economic position of the industry

Faced with a reduced demand on the domestic market and low prices on the export market, the industry contracted significantly during the seventies. Milk production fell from 7,249 m.l. in 1970–71 to 5,243 m.l in 1980–81. The downturn in the world dairy trading environment was attributable to production policies adopted by the major producing and consuming countries, such as the EEC and USA, coupled with protection of their domestic markets, which resulted in world production of most dairy products in excess of their market opportunities.

After large numbers of producers left the industry during the seventies the remainder produced milk more efficiently and during the first two years of the eighties, the industry prospered when domestic and export prices reached high levels. By 1983, however, the international dairy market again showed strong downward pressures, large stock levels and uncertainty. World market prices of many dairy products reached GATT minimum levels in 1984. In view of these circumstances, domestic prices of dairy products remained virtually static during those years and net farmgate returns to producers fell significantly.

Adjustment

The Rural Adjustment Scheme replaced the Rural Reconstruction Scheme on 1 January 1977 and incorporates most of the measures previously available under the Dairy Adjustment Program.

Herd improvement

The objective of the Australian Dairy Herd Improvement Scheme is to increase productivity per cow by better evaluation and selection of bulls and cows for breeding purposes through the provision of more accurate genetic information.

Government assistance

The downturn in the Australian dairy industry during the 1970s resulting largely from the low international prices for dairy products, led in 1976–77 to the introduction of new domestic marketing arrangements and a Government scheme to underwrite minimum prices for the major dairy products.

The voluntary equalisation arrangements which had operated in the dairy industry since 1923 were considered to be in danger of collapse because of the phasing out of a production bounty which had applied to butter and cheese.

Legislative backing for a levy/disbursement scheme has become the basis for stabilised marketing arrangements. It is aimed at protecting the domestic price structure for prescribed dairy products from disruptive price competition and providing each manufacturer with an equalised return for its domestic and export sales of such products. Prescribed dairy products include butter/butteroil, skim milk powder, wholemilk powder, casein and certain types of cheese.

From 1976–77 to 1980–81 the Government underwrote minimum prices for prescribed products. These prices were set annually on the basis of a minimum return per kilogram butter-fat in manufacturing milk.

In June 1981, following agreement with the dairy industry, the Government announced the introduction of new underwriting scheme for prescribed dairy products to apply for two years from 1 July 1981. Upon the recommendation of the Industries Assistance Commission (IAC), this scheme was extended for a year and subsequently, the Government agreed to continue this arrangement for the 1984–85 production year. The underwriting scheme is designed to protect the industry against unexpected and sharp falls in market returns without masking the underlying long term trends. Estimates of the Commonwealth commitment for underwriting of dairy products in 1983–84 are in the order of $12.25 million. Underwritten levels for dairy products produced in 1984–85, in $s per tonne, are: butter $1,885, cheese $1,721, skimmilk powder $846, casein $2,126, and wholemilk powder $1,228.

The Government also assists by matching, on a dollar for dollar basis, expenditure of levy raised for the purpose of a program of research recommended by the Australian Dairy Research Committee.

During 1983, the IAC conducted a comprehensive review of Government assistance to the dairy industry. Future government policy on assistance will be decided following a study of the IAC's Report published in November 1983. It is envisaged that any new marketing arrangements resulting from this review will not be implemented before 1 July 1985.

PRODUCTION, UTILISATION AND GROSS VALUE OF WHOLE MILK

Year	*Whole milk intake by factories*			
	Market milk sales by factories	*Milk used in the manufacture of dairy products*	*Total intake*	*Gross value*
	—million litres—			($ million)
1978–79	1,504	4,144	5,648	627.7
1979–80	1,511	3,887	5,398	676.0
1980–81	1,541	3,702	5,243	885.1
1981–82	1,552	3,716	5,268	1,033.9
1982–83	1,572	3,952	5,524	1,186.5
1983–84p	1,572	4,351	5,923	1,185.3

These milk intake figures have been collected (from milk factories) by the Australian Dairy Corporation and replace statistics of whole milk production and utilisation previously compiled by ABS.

Domestic market

Over the decade to 1982–83 there had been a marked swing away from the production of butter and its by-products, skim milk powder and casein, to cheese and whole milk powder. This was accompanied by an increased percentage of total milk production going to the fluid milk (including flavoured milk) market and being used in the manufacture of products such as yoghurt and table cream. However, the upsurge in milk production in 1983–84 was almost totally utilised in the production of butter and its by products.

Increased emphasis is being placed by manufacturers on meeting the requirements of the domestic market and efforts are being made to supply the consumer with a more readily usable product. Recent developments include the introduction of ultra high temperature (UHT) treated milk products and butter-vegetable oil blends. Recognition of the importance of the domestic market has also been reflected in the introduction of improved new packaging and an increasing level of promotion of dairy products.

Except for cheese, the domestic market is virtually supplied from Australian produced dairy products. Cheese imports account for approximately 19 per cent of domestic cheese consumption.

Exports

Australia's export trade in dairy products has undergone a considerable change in the last decade in terms of both the volume and type of product exported and the direction of trade.

Between 1969–70 and 1980–81, there was a significant overall reduction in the volume of milk produced in Australia. Since 1980–81, however, milk output has shown a steady but upward trend. Nevertheless the overall availability of dairy products for export has declined from the levels of a decade ago. In wholemilk equivalent terms, total Australian exports of dairy products in 1983–84 amounted to approximately three quarters of the volume of exports in 1973–74.

Britain was Australia's major outlet for dairy products, particularly butter and cheese, until it joined the EEC in 1973. Australia's export markets are now more diversified and this has involved changes in the mix of products exported. Exports of butter, casein and, to a lesser extent, skim milk powder have declined significantly from the level recorded in the early 1970s.

However since 1981–82, exports of these products have expanded with increasing quantity of milk available for manufacturing purposes and in line with international market demand. Exports of cheese and wholemilk powder, on the other hand, increased markedly in the decade to 1979-80, but subsequently, exports of cheese have remained relatively stable each year while the volume of wholemilk powder exported has declined.

Japan and South-East Asia are the principal markets for skim milk powder; USA and Japan for casein; USSR, South-East Asia and the Middle East for butter; South-East Asia for wholemilk powder and the Middle East and Japan for cheese.

The International market is currently characterised by considerable uncertainty and depressed prices owing mainly to the substantial surplus of dairy products which have been accumulated in the EEC and US. As a result, Australian exporters are currently encountering severe difficulty in exporting product onto the world market.

PRODUCTION AND TRADE OF BUTTER AND CHEESE

Year	*Butter*			*Cheese*			
	Factory production	*Exports (a)*		*Factory production(c)*	*Exports (b)*		
		Quantity	*Value f.o.b.*		*Quantity*	*Value f.o.b.*	*Imports*
	'000 tonnes	'000 tonnes	$m	'000 tonnes	'000 tonnes	$m	'000 tonnes
1978–79	104.8	28.2	37.8	141.8	51.4	69.0	12.1
1979–80	84.3	17.9	28.7	154.2	61.1	94.4	10.9
1980–81	79.4	12.0	23.1	136.7	54.1	103.7	13.3
1981–82	76.4	5.0	14.0	153.3	57.5	122.9	16.1
1982–83	88.3	15.5	41.1	159.6	54.5	134.6	19.7
1983–84p	111.3	29.7	57.9	161.2	54.6	139.6	22.3

(*a*) Excludes ghee and butter concentrates. (*b*) Includes processed cheese exports. (*c*) Factory production is shown only for non-processed cheese.

Apparent consumption

CONSUMPTION OF MILK, BUTTER, CHEESE AND MARGARINE

Year	*Apparent consumption Total*			*Apparent consumption Per capita per year*				
							Margarine	
	Market milk	*Butter*	*Cheese*	*Market milk*	*Butter*	*Cheese*	*Table*	*Other*
	mil. litres	'000 tonnes	'000 tonnes	litres	kg	kg	kg	kg
1978–79	1,452	65	87	100.6	4.5	6.0	5.9	2.9
1979–80	1,510	66	96	103.4	4.6	6.6	6.4	2.4
1980–81	1,540	64	98	104.0	4.3	6.6	6.7	2.5
1981–82	1,552	65	105	103.1	4.3	7.0	6.8	2.7
1982–83	1,572	61	113	102.9	4.0	7.4	6.8	2.8
1983–84p	1,572	61	119	102.3	4.0	7.7	6.9	2.7

For further details on the dairying industry *see* the publications, *Livestock and Livestock Products, Australia* (7221.0), and *Production Bulletin No. 3: Food, Drink and Tobacco, Australia* (8359.0).

Beekeeping

The beekeeping industry consists of approximately 300-400 full-time apiarists, who produce approximately 70 per cent of all Australian honey, and a large number of part-time apiarists who produce the rest. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to obtain a continuous supply of nectar for honey from suitable flora. While honey production remains the predominant sector of the industry, production of breeding stock and provision of pollination services is significant.

In early 1984 the Industries Assistance Commission released its draft report on the honey industry and recommended that no further assistance, for example, by way of stabilization, be given. The IAC had inquired into the industry as a result of a request for a "stabilization scheme" to protect against the effect of variations in export prices.

NOTE: Statistics in the following table relate to apiarists with forty or more hives.

BEEKEEPING STATISTICS

Year	*Number of apiarists*	*Number of beehives*		*Honey produced*			*Beeswax produced*	
		Productive	*Total*	*Quantity*	*Average production per productive hive*	*Gross value*	*Quantity*	*Gross value*
		'000	'000	'000 tonnes	kg	$'000	tonnes	$'000
1977–78	2,151	363	479	18.6	51.2	13,480	329	1,096
1978–79	2,201	369	501	18.3	49.5	14,111	349	1,213
1979–80	2,141	402	511	25.0	62.0	19,050	464	1,719
1980–81	2,224	379	530	19.5	51.6	15,815	366	1,530
1981–82	2,263	405	552	24.8	61.3	18,211	482	1,978
1982–83	2,182	387	537	22.4	57.9	16,605	423	1,613

EXPORTS OF HONEY AND BEESWAX

	Honey		*Beeswax*	
Year	*Quantity*	*Value f.o.b.*	*Quantity*	*Value f.o.b.*
	'000 tonnes	$'000	tonnes	$'000
1978–79	5.7	6,124	194	743
1979–80	11.4	11,572	218	917
1980–81	8.2	8,985	177	733
1981–82	12.8	10,596	303	1,216
1982–83	14.7	13,075	368	1,387
1983–84p	10.0	11,135	256	955

Honey levy

The *Honey Levy Acts* (*Nos. 1 & 2*) *1962* impose a levy on domestic sales of honey. The rate of levy is set by regulation up to a maximum of 2.70c per kg provided in the legislation. From 1 October 1983 the levy was increased from 2.05c per kilo to 2.45c per kg.

The *Honey Export Charge Act* (*1973*), imposes a charge on exports of honey. The current rate of charge, set by regulation, is 0.75c per kg. The legislation provides for a maximum charge of 1.5c per kg.

0.25c per kg of both the levy and charge is the industry contribution to research while the remainder is used to finance the operations of the Australian Honey Board.

Honey Exports

Honey exports in 1983–84 were well down on the record levels of 1982–83. This was due to a number of factors not the least of which was reduced production in the wet summer of 1983–84 following the breaking of the drought. In addition the levels of stocks in packers' hands at the beginning of 1983–84 was well down on previous years following an extended period of high interest rates and a greater awareness generally of the costs involved.

For further information, *see* the publication *Livestock and Livestock Products, Australia* (7221.0).

Eggs and egg products

Recorded commercial egg production in mainland Australian States (not including N.T. and A.C.T.) in 1983–84 was 192.8 million dozen. This compares with 193.5 million dozen in 1982–83 giving a fall in production of 0.33%. It is expected, however, that the fall in production in 1984-85 will be of greater magnitude as all Australian States endeavour to reach their goal of maintaining quota hen numbers at such levels as will result in production being very close to domestic needs with very little left over for export. N.S.W. is expected to show the greatest fall in production in the forthcoming year. Such action has been taken as the net returns on exports of shell eggs and egg products has been well below the cost of production in past years. The industry has adopted a five year plan to reduce the national surplus to a 3 per cent margin which should meet seasonal shortfalls and the relatively minor profitable sector of the export market by July 1987.

EGGS AND EGG PRODUCTION: SUPPLY AND UTILISATION
(Eggs in shell weight)

	Production(a)				*Apparent consumption in Australia as human food*	
Year	*Quantity*	*Gross value*	*Exports*	*Processed food(b)*	*Total*	*Per capita per year*
	'000 tonnes	$ million	'000 tonnes	'000 tonnes	'000 tonnes	kg
1977–78	200.7	196.3	20.8	26.7	176.0	12.4
1978–79	195.7	196.9	16.3	20.5	180.2	12.6
1979–80	194.6	216.1	11.2	18.0	182.4	12.5
1980–81	202.4	227.4	18.9	23.2	183.3	12.4
1981–82	199.3	253.4	11.5	17.9	188.3	12.5
1982–83	204.4	275.3	9.8	18.6	191.2	12.5

(*a*) Includes estimates for uncontrolled commercial production and production by self-suppliers. (*b*) Includes egg products as pulp and powder; also includes wastage.

Egg Consumption

Egg production and consumption data are not available on an Australia wide basis but are restricted to the areas of production and sales as controlled by the mainland State Egg Boards. On the basis of State Egg Board data, 'controlled' production decreased by 0.33% in 1983–84 compared with 1982–83 while the total sales (controlled) of both shell eggs and egg products decreased from 175.3 million dozen (equivalent) in 1982–83 to 174.9 million dozen (equivalent) in 1983–84 or a fall of 0.19 per cent.

Exports

Exports from Australia are predominantly in egg pulp form—white, yolk and whole egg—with Japan retaining its place as the principal market. In 1983–84, however, nearly 6 million dozen shell eggs were shipped to Hong Kong out of a total of 17.9 million dozen exported by the Boards in all forms. Export levels are expected to fall markedly in 1984–85 as all States (N.S.W. in particular) cut back production to eliminate wherever possible the substantial losses being incurred by the industry with this trade.

EXPORTS OF EGGS AND EGG PRODUCTS

			Eggs not in shell			
	Eggs in shell		*Liquid form*		*Dry*	
Year	*Quantity*	*Value f.o.b.*	*Quantity*	*Value f.o.b.*	*Quantity*	*Value f.o.b.*
	'000 doz	$'000	tonnes	$'000	tonnes	$'000
1978–79	962	514	8,200	9,790	99	374
1979–80	1,364	779	5,833	5,816	74	322
1980–81	1,423	1,113	8,508	8,891	50	337
1981–82	1,143	1,095	5,013	6,400	62	219
1982–83	2,672	1,763	3,455	4,108	85	682
1983–84p	6,734	3,541	6,892	6.112	95	312

Agricultural improvements

Fertilisers

Most Australian soils are deficient in phosphorus. Because of this and the significant but less widespread deficiency of sulphur in many soils, phosphatic fertilisers, particularly single superphosphate, account for the bulk of fertiliser usage. Nitrogen deficiency is also general in Australian soils and the use of nitrogenous fertilisers is increasing. Potassium deficiency however is confined mainly to soils in the higher rainfall areas which are intensively cropped or used for irrigated pastures.

The pattern of fertiliser usage in Australia has changed dramatically in recent years. Prior to 1973-74 the usual consumption ratio of elemental N:P:K has been 2:6:1, but since then the ratio has changed to almost 3:3:1 in 1983. This variation has resulted from a combination of reduced consumption of phosphatic fertilisers with an increased consumption of nitrogenous fertilisers.

The domestic industry has sufficient manufacturing capacity to meet normal local demand for phosphatic fertilisers but not nitrogenous fertilisers. Australia is dependent on imports of potassic fertilisers, rock phosphate and sulphurs. Imports of compounded high analysis fertilisers and specialised fertilisers were insignificant until 1982-83. Since then, however, imports have been rising strongly, largely as a result of oversupply and lower prices on the world market.

ARTIFICIAL FERTILISERS: AREA AND USAGE

Year	*Area fertilised*	*Superphosphate used*	*Nitrogenous fertilisers used*	*Other fertilisers used*
	'000 ha	'000 tonnes	'000 tonnes	'000 tonnes
1977–78	24,324	2,538	490	383
1978–79	25,403	2,651	485	398
1979–80	n.a.	2,969	365	620
1980–81	n.a.	2,947	392	609
1981–82	26,777	2,874	395	599
1982–83	n.a.	2,562	429	633

Since the Second World War there has been a great expansion of the area of sown pasture accompanied by an increased use of fertilisers. New pasture varieties (including tropical species) have been developed, and nutrient or trace element deficiencies in soils identified.

The main artificial fertiliser used in Australia is superphosphate, over half of which is used on pastures, mainly in areas with moderate to good rainfall. Large quantities are also used on cereal crops.

SUPERPHOSPHATE USAGE

	Selected crops and pastures					
Year	*Sown and native pastures*	*Lucerne*	*Wheat*	*Other cereals*	*Sugar cane*	*Total*
			AREA FERTILISED ('000 hectares)			
1977–78	11,325	469	7,827	3,960	289	24,324
1978–79	12,079	379	8,004	4,220	266	25,403
1979–80	14,703	n.a.	8,607	n.a.	262	n.a.
1980–81	13,964	n.a.	8,723	n.a.	291	n.a.
1981–82	12,240	106	9,361	4,034	301	26,043
1982–83	10,712	n.a.	9,299	n.a.	300	n.a.
			SUPERPHOSPHATE USED ('000 tonnes)			
1977–78	1,335	67	635	392	25	2,538
1978–79	1,451	55	634	410	22	2,651
1979–80	1,820	n.a.	716	n.a.	26	2,969
1980–81	1,733	n.a.	756	n.a.	32	2,947
1981–82	1,518	21	801	416	31	2,874
1982–83	1,289	n.a.	777	n.a.	27	n.a.

PRODUCTION AND IMPORTS OF FERTILISERS

Item		*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84p*
			PRODUCTION				
Superphosphate (*a*)	'000 tonnes	3,680	4,202	3,770	3,568	2,968	2,663
Mixed chemical fertilisers (including complete manures)	'000 tonnes	993	1,050	1,277	1,092	964	n.y.a.
Leaf and foliage type fertilisers (including dry and liquid form)	tonnes	n.p.	3,758	n.p.	7,765	n.y.a.	n.y.a.
Manures (without added chemical fertilisers) (*b*)	tonnes	12,678	12,558	29,906	n.p.	n.y.a.	n.y.a.
			IMPORTS				
Crude fertilisers (mainly natural phosphate)	'000 tonnes	2,381	2,181	2,294	2,772	2,148	1,706
	Value $m	83.4	80.4	102.1	128.6	109.1	86.0
Manufactured, mineral or chemical fertilisers—							
Nitrogenous (*c*)	'000 tonnes	29	75	86	108	101	91
	Value $m	4.2	9.4	12.7	16.2	15.6	14.8
Potassic (*d*)	'000 tonnes	174	215	213	255	203	228
	Value $m	9.9	15.5	21.5	26.7	20.7	23.1
Other (*e*)	'000 tonnes	72	81	66	92	273	388
	Value $m	10.3	7.2	14.8	19.1	53.1	87.8

(*a*) Includes double and triple superphosphate and ammonium phosphate in terms of single superphosphate. (*b*) Blood, bone and/or offal, and other material. (*c*) Mainly ammonium nitrate, ammonium sulphate, calcium ammonium nitrate, sodium nitrate and urea containing in the dry state more than 45 per cent by weight of nitrogen. (*d*) Mainly potassium chloride and potassium sulphate. (*e*) Includes phosphatic fertilisers and compounds of the main elements nitrogen, phosphorus and potassium (N.P.K. complete fertilisers).

Note: Production data are derived from the Annual Manufacturing Census and the recorded monthly production.

Aerial agriculture

Extensive use is made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures and for pest and vermin extermination. The statistics below have been compiled from returns collected from the operators of aircraft engaged in aerial agriculture. The collection, which was commenced in 1956, is now the responsibility of the Department of Aviation.

AERIAL AGRICULTURE

Year ended 31 March	Area treated ('000 hectares)			Materials applied ('000 tonnes)		Productive hours flown ('000 hours)
	Top dressed and seeded	Sprayed	Total(a)	Super-phosphate	Seed	
1979	3,212	2,956	6,224	374.5	5.9	101.2
1980	4,416	2,412	6,907	514.2	6.4	127.3
1981	2,727	2,054	4,850	489.5	4.6	98.7
1982	2,461	2,760	5,395	276.7	2.9	86.3
1983	1,643	1,638	3,448	193.7	3.2	62.2
1984	1,999	3,613	5.710	196.6	5.7	82.0

(*a*) Includes other types of treatment (rabbit baiting, etc.).

Irrigation on agricultural establishments

Irrigation is one of the factors by which agriculture is further developed. The variability in stream flow and annual rainfall means that successful irrigation of crops and pastures is dependent on storage. Ground water supplies are also used in areas where the quantity is adequate and the quality is suitable. The area of land irrigated (approximately 1.6 million hectares in 1983–84) forms about 9 per cent of the total area under crops and only 0.3 per cent of the total area of agricultural establishments.

Chapter 15, *Water Resources*, contains additional details of water conservation and irrigation with international, national and interstate aspects.

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, AUSTRALIA 1983–84p
('000 hectares)

Crops and Pastures	Method				Total
	Sprays	Furrows and/or Flood	Trickle	Other and multiple methods	
Pure Lucerne	53.6	25.9	n.a.	2.6	82.2
Other pastures (sown or native) . . .	119.2	643.3	n.a.	26.4	789.1
Cereals for all purposes	51.7	251.6	n.a.	12.2	315.5
Vegetables for human consumption .	56.0	11.6	1.9	7.3	76.9
Total fruit	33.9	33.6	25.8	4.7	98.0
All other crops	77.0	171.2	1.4	13.7	263.3
Total	**391.5**	**1,137.3**	**29.1**	**67.0**	**1,624.9**

SOURCE AND USAGE OF WATER FOR IRRIGATION, AUSTRALIA

Irrigation— area irrigated, by source 1983–84p(b)			Estimated annual water use in 1977(a)			
			Irrigation	Rural (excl irrigation)	Urban industrial	Total
	('000 ha)	percentage of total area irrigated %	—million cubic metres—			
Surface water—						
State irrigation schemes . .	915.6	56		n.a.		
Rivers, creeks, lakes . . .	368.3	22				
Farm dams	107.7	7				
Total surface water . .	1,391.6	86	11,554	742	2,493	14,789
Town or country reticulated(c)	9.9	1	. .	. .	. .	. .
Underground (ground water)	226.1	14	1,639	337	480	2,486
Total, all sources . .	**1,627.6**	**100**	**13,256**	**1,348**	**3,187**	**17,774**

(*a*) Estimated for an average climatic year; data source is the first *National Survey of Water Use in Australia*, Department of National Development and Energy and Australian Water Resources Council, Occasional Papers Series No. 1, AGPS, 1981. The data in the original are shown by drainage division and provide a sound basis for the efficient utilisation of existing resources and for the planning of future projects. (*b*) Data source is the annual Agricultural Census and represents area actually irrigated. Total area will therefore agree with that shown in the table on crops and pastures irrigated by method of irrigation. (*c*) This source represents irrigation water which has come from either surface or underground sources.

Agricultural machinery on agricultural establishments

Statistics on the type of agricultural machinery on agricultural establishments were published in early issues of the Year Book. Additional information was published in the publication *Agricultural Land Use, Improvements and Labour, Australia*, 1980-81 (7103.0). Details of the sales of new tractors for agricultural purposes are given in the quarterly publication *Sales and Stocks of New Tractors, Australia* (8507.0).

Employment in Agriculture

Employment on agricultural establishments

Prior to 1976 data on employment collected at the annual Agricultural Census differentiated between permanent full-time employees and temporary employees. Full-time workers excluded casual or seasonal workers and other persons working only part-time. Casual or seasonal workers were shown as temporary employees.

In the past it has been difficult to maintain comparability of employment on agricultural establishments from year to year because of the changing number of lessees and share farmers and because of the tendency of many farmers to include part-time family helpers as full-time workers in their returns. Since the Second World War there has been a decline in the percentage of people living in rural areas due, in part, to a rising standard of living accompanying the introduction of new techniques and increasing use of capital equipment, fuel, fertilisers, and pesticides. As a result, a smaller agricultural labour force is now producing a larger output of farm products.

EMPLOYED PERSONS IN AGRICULTURE AND SERVICES TO AGRICULTURE
('000)

Month of August	*Males*	*Married females*	*All females*	*Persons*
1979	293.8	69.8	81.7	375.5
1980	285.1	77.5	93.4	378.5
1981	281.9	87.1	104.6	386.5
1982	281.7	87.1	101.0	382.7
1983	290.2	80.2	94.1	384.2
1984	279.3	80.0	93.8	373.1

Source: Monthly population survey conducted by the ABS throughout Australia. For further details *see The Labour Force, Australia* (6203.0).

Regulation of Australian agricultural industries

Year Book No. 61, pages 837–57, contains a summary of the means by which agricultural industries are assisted and regulated. It is not intended as a comprehensive statement of all the consultative and legislative assistance and control measures that exist, but rather as a description of the way in which these processes affect the crops, livestock and livestock products referred to earlier in this chapter.

Readers, however, are referred to the latest edition of *Rural Industry Information Papers* prepared annually by the Department of Primary Industry and published by the Australian Government Publishing Service. The *Papers* contain up-to-date information on production and market prospects for Australia's primary industries together with details of Government assistance measures.

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CHAPTER 14

FORESTRY AND FISHERIES

FORESTRY

Forestry in the States and Territories

In the Australian Federal framework, State Governments are primarily responsible for land management. Each State has a forest service responsible for the management and control of publicly-owned forests, in accordance with Forestry Acts and Regulations. Forest management aims to satisfy all reasonable demands by the community on the forest estate including timber production, provision of minor forest products, grazing, protection of native flora and fauna, recreation and watershed protection.

The Department of Territories and Local Government is responsible for the management and control of forests in the Australian Capital Territory. Forestry in the Northern Territory is the responsibility of the Northern Territory Conservation Commission.

Commonwealth Forestry Administration

The Department of Primary Industry is responsible for forestry matters at the national level. Its primary responsibilities are the administration of a control on the export of unprocessed timber, liaison with State, national and international organisations concerned with forestry, provision of the Secretariat for the Australian Forestry Council. Compilation of national statistics on the forest industries is undertaken by the Bureau of Agricultural Economics.

Existing Forest Estate

The total area of native forest, defined as land dominated by trees with an existing or potential mature height of twenty metres or more, including native stands of cypress pine in commercial use regardless of height, was estimated at 40.8 million hectares as at 30 June 1983. Thirty-five million hectares of the natural forests are dominated by eucalypts. For a more detailed examination of Australian native forests, *see* Yearbook No. 61, Chapter 24.

NATIVE FOREST AREAS CLASSIFIED BY FOREST TYPE, 30 JUNE 1983

('000 hectares)

Forest type group	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Rainforest	253	–	(*b*)1,074	–	–	472	38	–	1,837
Eucalypt									
Productivity Class I(*c*)	1,220	631	204	–	180	502	–	–	2,737
Class II(*d*)	3,649	3,981	1,290	–	2,777	1,843	–	51	13,591
Class III(*e*)	8,320	293	3,140	–	18	–	–	–	11,771
Tropical eucalypt and paperbark	–	–	4,078	–	–	–	2,450	–	6,528
Cypress pine	1,908	6	1,685	–	–	–	778	–	4,377
Total	**15,350**	**4,911**	**11,471**	**–**	**2,975**	**2,817**	**3,266**	**51**	**40,841**

(*a*) Last revised 1972; rainforest areas revised 1981. (*b*) Currently under revision. (*c*) Relatively high productivity. (*d*) Relatively low productivity. (*e*) Moderate productivity.

NATIVE FOREST AREAS CLASSIFIED BY OWNERSHIP, 30 JUNE 1983

('000 hectares)

Ownership category	*N.S.W.(a)*	Vic.(*b*)	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
State forestry(*c*)	2,866	1,916	(*d*)3,126	–	1,918	1,550	312	–	11,688
Other public(*e*)	6,208	1,536	5,672	–	374	399	188	51	14,428
National parks (*f*)	993	(*g*)853	(*d*)1,394	–	140	122	315	–	3,817
Private (*h*)	5,283	606	1,279	–	543	746	2,451	–	10,908
Total	**15,350**	**4,911**	**11,471**	**–**	**2,975**	**2,817**	**3,266**	**51**	**40,841**

(*a*) Last revised 1976. (*b*) As at 31 March 1980. (*c*) Publicly owned land, permanently reserved or dedicated primarily for timber production. (*d*) Currently under revision. (*e*) Publicly owned land, vacant or occupied under lease, not specifically reserved for timber production, but on which control of timber rests with the Crown. (*f*) Publicly owned land, permanently reserved for purposes other than timber production. (*g*) Some wood production is allowed in some national parks in Victoria. (*h*) Privately owned land, and leasehold where the Crown has no control over timber rights.

Plantations

Tree plantations of a few coniferous species now provide a large part of Australian-grown wood supplies. The large scale establishment of these plantations was commenced by State Forest Services early this century, and in the case of South Australia, last century, to overcome the shortage of native coniferous timber. In an eleven year period covered by the *Softwood Forestry Agreements Acts* 1967, 1972 and 1976, the Commonwealth provided financial assistance to the States in the order of $55 million for an extended program of softwood plantation development. A further Act in 1978, provided funds for a five year period to 30 June 1982 for the maintenance of the area of plantations established previously with Commonwealth funds.

Privately owned plantations amount to approximately two-fifths the area under State ownership. New plantations (including replanting) are currently being established at the rate of 30,000 hectares per annum, of which almost one-third is by private enterprise. A detailed account of the history and development of coniferous plantations and of the characteristics of individual species is included in Yearbook No. 59, page 880. The following table shows total area of plantations in Australia classified by species.

PLANTATION AREAS(*a*), CLASSIFIED BY SPECIES, 31 MARCH 1983

(Hectares)

Species group	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Coniferous—									
Pinus radiata	183,472	173,153	3,532	74,801	40,494	57,314	—	13,324	546,090
Pinus elliottii	4,735	—	98,520	—	182	—	—	—	103,437
Pinus pinaster	—	1,464	—	3,666	26,008	—	—	—	31,138
Pinus caribaea	829	—	26,618	—	—	—	1,917	—	29,364
Araucaria	1,551	—	43,512	—	—	—	1	—	45,064
Other coniferous	6,656	2,891	5,569	397	148	354	2545	820	19,380
Total coniferous	*197,243*	*177,508*	*177,751*	*78,864*	*66,832*	*57,668*	*4,463*	*14,144*	*774,473*
Broadleaved—									
Eucalyptus	6,587	13,401	2,770	1,072	8,441	6,763	2	—	39,036
Populus	2,161	316	—	—	—	—	—	—	2,477
Other broadleaved	—	82	468	—	—	984	1	—	1,535
Total broadleaved	*8,748*	*13,799*	*3,238*	*1,072*	*8,441*	*7,747*	*3*	—	*43,048*
Total	**205,991**	**191,307**	**180,989**	**79,936**	**75,273**	**65,415**	**4,466**	**14,144**	**817,521**

(*a*) Public and private ownership.

Australian Forestry Council

In 1964, the Australian and State Governments formed the Australian Forestry Council to co-ordinate the development of the forest resource in the general interest of the community and to guide national programmes for the production, utilisation and conservation of Australian forests. Membership of the council comprises the State and Northern Territory Ministers responsible for forestry and the Commonwealth Minister for Primary Industry. The council is serviced by a Standing Committee and specialist sub-committees.

Research

Commonwealth Scientific and Industrial Research Organization (CSIRO)

The Division of Forest Research in the Institute of Biological Resources conducts research in the core areas of forest ecology, forest diseases, forest physiology, forest operation, fire behaviour and soils nutrition. The Division also conducts research into taxonomy, mathematical modelling and seed research. The Division maintains close liaison with relevant State authorities and, on occasion, collaborates with private companies. It operates two regional stations and three regional groups in the States.

Within the Institute of Biological Resources (Divisions of Plant Industry, Entomology, Soils, Water and Land Resources and Wildlife and Rangelands Research) and the Institute of Energy and Earth Resources (Division of Groundwater Research) research is undertaken on forestry problems relevant to the disciplines pursued in these Divisions.

Within the Institute of Industrial Technology, the Division of Chemical and Wood Technology carries out a wide range of investigations relating to the properties of wood, the processing and uses of wood and wood products. The research programs of the Division are directed towards developing ways whereby Australia's forest resources can be more effectively utilised. The programs include processing of wood and timber, technology of fibre separation, wood and fibre properties, composite wood and paper products, assessment of cellulosic resources and conservation of wood-based materials. Technology for the production of high value chemicals from wood and other plant materials is also being investigated.

The Divisions provide assistance to individuals and industry, provide training and experience for overseas technologists and maintain co-operative aid projects with developing countries.

Education

The Australian National University's Department of Forestry in Canberra and the Faculty of Agriculture and Forestry of the University of Melbourne offer undergraduate courses leading to a Bachelor of Science degree in Forestry. Most States provide for sub-professional forestry training.

Each year the Department of Primary Industry makes available awards for full-time postgraduate research, normally leading to the degree of Master and/or Ph. D at an Australian university. The Department also administers an award based upon a private bequest for postgraduate study at Oxford University.

Timber and timber products

The selected details shown below have been compiled from the annual census of manufacturing establishments. For further details *see* Chapter 17, Manufacturing and Internal Trade.

MANUFACTURING ESTABLISHMENTS(*a*)—SUMMARY OF OPERATIONS, 1982–83

1978 ASIC code(b)	*Industry description*	*Establishments at 30 June*	*Persons employed (c)*	*Turnover*	*Value added*	*Fixed capital expenditure less disposals*
		No.	No.	$'000	$'000	$'000
2531	Log sawmilling	668	11,066	533,357	284,682	11,262
2533	Veneers and manufactured boards of wood	74	4,700	390,349	142,187	38,475
2537	Hardboard woodchips	12	699	153,458	53,390	1,573

(*a*) All manufacturing establishments owned by multi-establishment enterprises and single establishment enterprises with four or more persons employed. (*b*) Australian Standard Industrial Classification. (*c*) Average over whole year includes working proprietors.

TIMBER AND SELECTED TIMBER PRODUCTS PRODUCED (*a*)

Item		*1980–81*	*1981–82*	*1982–83*
Undressed sawn timber—				
Recovered from sawn logs—				
Australian grown—				
Broadleaved	'000 cu m	2,217	2,152	1,790
Coniferous	"	1,190	1,125	1,195
Total	"	**3,407**	**3,276**	**2,985**
Woodchips (green weight)—				
Hardwood (broad leaved)	'000 tonnes	4,410	3,943	4,031
Plywood—				
Commercial—(surface measure)	'000 sq m	5,275	4,502	10,499
(1 mm basis)	"	42,494	39,109	37,750
Waterproof—(surface measure)	"	4,032	4,076	1,829
(1 mm basis)	"	48,680	47,980	18,938
Particle board (resin bonded)	'000 cu m	686	707	572
Wood pulp—				
Chemical	tonne	168,555	181,097	155,675
Mechanical	"	537,775	487,498	470,207
Other	"			
Paper—				
Newsprint	tonne	214,447	303,563	365,802
Printings	"	102,514	96,775	94,662
Writing (incl. cartridge)	"	(*b*)	(*b*)	(*b*)
Wrapping	"	411,322	372,457	302,372
Blotting	"	(*c*)	(*c*)	(*c*)
Duplicating	"	(*d*)118,526	(*d*)101,669	(*d*)84,326
Other paper	"	(*e*)23,680	(*e*)25,001	(*e*)38,456
Tissue and sanitary papers	"	108,343	110,570	114,249
Paperboard (incl. strawboard)	"	485,995	486,627	429,336

(*a*) Excludes production of small single establishment enterprises with less than four persons employed and establishments engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. (*b*) Combined with 'Duplicating' paper. (*c*) Combined with 'Other paper'. (*d*) Includes 'Writing (incl. cartridge)' paper. (*e*) Includes 'Blotting' paper.

Woodchips

The woodchip industry entails the procurement of wood and its mechanical reduction to chips about the size of an Australian 50 cent piece. These chips are either exported for pulping or retained for use in domestic pulping operations.

Timber and timber products

The major forest industries include the sawmilling, ply and veneer, reconstituted board (particleboard, fibreboard) and pulp and paper production. The sawmilling industry is the largest single user of logs harvested from Australian forests (52 per cent), followed by the pulp and paper industry (45 per cent). Currently about 68 per cent of total volume of logs harvested are obtained from natural forests and the remainder mainly from coniferous plantations. This proportion will change over time so that towards the end of this century about half the supply of logs may be from coniferous plantations. Total removals at that time are estimated at 23 million cubic metres compared to current log removal of 14 million cubic metres.

The value of imports of forest products in 1982-83 was in the order of $1,054 million while the value of exports of timber products was $261 million of which $152 million was for woodchips.

The following table shows the production, imports, exports and domestic consumption of sawn timber and major timber products

SAWN TIMBER AND MAJOR TIMBER PRODUCTS, 1982-83

(*Source:* Forestry Economic Research Section, Bureau of Agricultural Economics and Australian Bureau of Statistics)

Item		*Production (1)*	*Imports (2)*	*Exports (3)*	*Domestic Consumption (1 + 2 – 3)*
Sawn timber	cu m	2,598,003	826,360	33,468	3,390,895
Plywood	cu m	71,493	53,919	104	125,308
Railway sleepers	cu m	196,462	—	11,120	185,342
Particleboard	cu m	534,914	1,673	14,999	521,588
Hardboard	cu m	86,060	1,393	3,172	84,281
Newsprint	tonne	375,727	134,569	10,075	500,221
Printing and writing	tonne	178,748	184,057	11,928	350,877
Other paper	tonne	440,713	173,595	43,852	570,456
Paperboard	tonne	434,788	35,875	5,557	465,106

In addition to the products listed above, exports for 1982-83 of pulpwood (virtually all in the form of woodchips) was 4,036,671 tonnes (green).

FISHERIES

Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this section are obtained from the collections of State Fisheries Authorities. In all States except Queensland and Tasmania, the information is derived from returns collected from licensed fishermen. In Queensland the statistics have, to date, been based mainly on Fish Board receipts, but a new collection from fishermen, fish wholesalers and processors is now being developed. Tasmanian data are obtained from buyers and processors. Additionally, details of New South Wales tuna production are supplied by the CSIRO and particulars of Australian pearl culture have been collected and supplied by the Fisheries Division of the Department of Primary Industry.

Australian fisheries production statistics are generally in terms of the form in which the products are taken from the water. For example, the statistics of fish production published in this chapter are in terms of 'estimated live weights' which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on an 'estimated live weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis. The figures for pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

For more details of employment and boats and equipment for general fisheries and particulars of the whaling industry *see* earlier issues of this publication.

Fisheries resources and their commercial exploitation

Fish

Over 3,000 species of marine and freshwater fish occur in and around Australia. Australian fishermen concentrate their efforts on estuarine, coastal, pelagic (surface and mid-water swimming) and demersal (bottom living) fish that occur off the north-east, south-east and south-west coasts. Off north Australia, barramundi (*Lates calcarifer*) constitutes the most important estuarine and coastal species, while in the south-east and south-west regions, mullet (mainly *Mugil cephalus*), bream (*Acanthopagrus* spp.) Australian salmon (*Arripus trutta*) and Australian herring (*Arripus georgianus*) are important catch components.

Major pelagic fisheries are Spanish mackerel (*Scomberomorus commerson*) off north Australia, and southern bluefin tuna (*Thunnus maccoyii*), snoek (*Leionura atun*), pilchards (*Sardinops neopilchardus*) and anchovies (*Engraulis australis*) off south-east Australia. Southern bluefin tuna are also fished off south-west Australia. Significant stocks of jack mackerel off southern Australia are as yet lightly fished.

A large multispecies demersal fishery that targets on flathead (*Neoplatycephalus* and *Platycephalus* spp.) morwong (*Nemadactylus* spp.), redfish (*Centroberyx affinis*) gemfish (*Rexea solandri*) and blue grenadier (*Macruronus novaezelandiae*), exists off south-east Australia. Demersal inshore snapper (*Chrysophrys auratus*) fisheries exist off south-west and south-east Australia; in the latter region, stocks of whiting (*Sillaginidae*) are also fished. In the northern tropical region, reef fish such as cods (*Epinephelus* spp.) are exploited. A large demersal fishery for edible school and gummy sharks (*Galeorhinus australis* and *Mustelus antarcticus,* respectively) is centred in Bass Strait.

Establishment of the 200 nautical mile Australian Fishing Zone (AFZ), has brought portions of oceanic tuna stocks, and demersal and pelagic fish stocks presently exploited by foreign fishing vessels, under Australian control. A foreign pelagic gill-net fishery off the north coast catches sharks (mainly *Carcharhinus* spp.), tuna (*Thunnus tonggol*) and Spanish mackerel while a demersal pair trawl fishery off the north-west coast exploits a tropical, multispecies fauna that includes threadfin bream (*Nemipteridae*) tropical snappers (*Lutjanidae*), emperors (*Lethrinidae*) goatfish (*Mullidae*) and hair tails (*Trichiuridae*).

Crustaceans

Prawns (*Penaeus* and *Metapenaeus spp*) provide the most valuable fishery in Australia and are taken in estuarine, coastal and offshore waters of all States except Tasmania. The western and southern rock lobsters (*Panulirus longipes cygnus* and *Jasus novaehollandiae*), also a valuable resource, are taken on rocky reefs around the southern half of Australia. Bay lobsters (*Thenus spp* and *Ibacus spp*) are taken incidentally to prawn trawling operations. Crabs (*Scylla spp* and *Portunus spp*) are taken mainly in Queensland, New South Wales and Western Australia.

Molluscs (edible)

Naturally-occurring oysters are harvested in all States; in New South Wales and Queensland the Sydney rock oyster (*Crassostrea commercialis*) is cultured commercially. The introduction of the Pacific oyster (*Crassostrea gigas*) to Tasmania and South Australia has provided a limited supply in those States. Following a serious decline in catches in the scallop (*Pecten meridionalis*) fishery based on stocks in Port Phillip Bay, Victoria, new offshore beds were located in southern New South Wales, eastern Victoria, northern Tasmania and south-western Western Australia. However, substantial fluctuations in abundance have resulted in erratic production from year to year. A fishery based on the saucer scallop (*Amusium balloti*) is located off south and central Queensland and there is a small fishery for the same species in Shark Bay, Western Australia. An important abalone (*Haliotus spp*) fishery has been developed since 1964 in south-east Australia with Tasmania, Victoria and South Australia providing the bulk of the catch. There is also a small abalone fishery in south-west Australia. Mussels (*Mytilus planulatus*) are harvested in Victoria, Western Australia and New South Wales. Prior to 1978 small quantities of cephalopods, mainly squid, were produced in many localities. Feasibility fishing located promising squid resources (*Notutodarus gouldi*) in the south east. Squid (*Loligo spp*) form an important component to the trawl catch in the Arafura Sea.

Pearl-shell and trochus-shell

The shell of the Australian species of pearl oyster (*Pinctada maxima*) is taken from various localities in the tropical waters of Australia between Broome in Western Australia and Cairns in Queensland for the manufacture of buttons, knife handles, etc. Live pearl-shell is used for pearl culture, *Pinctada maxima* being capable of producing pearls which are the largest in the world and which command top market prices. Trochus-shell is found mainly on coral reefs off the Queensland coast, although small quantities occur in Western Australia.

Whales

Whales are now a protected species in the Australian Fishing Zone.

Fisheries administration and research

The Commonwealth Parliament has enacted a number of laws dealing with fisheries in Australian waters beyond territorial limits. The fisheries laws of the States and the Northern Territory apply to all kinds of fishing within the territorial sea and in inland waters. These laws require the licensing of persons and boats in the commercial fisheries and provide a range of other regulatory powers. The Commonwealth Government laws relating to fishing are the *Fisheries Act* 1952, the *Continental Shelf (Living Natural Resources) Act* 1968, *Foreign Fishing Boats Levy Act* 1981 and the *Fisheries Agreements (Payments) Act* 1981.

Fisheries Act 1952

This Act applies to commercial fishing for swimming species, by Australians in waters extending from 3 to 200 nautical miles seaward of the territorial sea baseline of Australia and the external territories excluding the territorial sea of another country, and by foreign boats in the 200 nautical miles Australian Fishing Zone. The Australian Fishing Zone comprises waters which extend 200 nautical miles seaward of Australia's territorial sea baselines but does not include territorial seas within the accepted fishing zones of adjacent countries or waters adjacent to Australia's Antarctic Territory.

Continental Shelf (Living Natural Resources) Act 1968

This Act regulates the searching for and taking, from the continental shelf of Australia and the external territories, of living sedentary species by Australians and foreigners. Sedentary species are those that, at the harvestable stage, are either immobile on or beneath the seabed or are unable to move except in constant physical contact with the seabed. The continental shelf is the seabed beyond the territorial sea and adjacent to permanently exposed land masses, extending to a depth of 200 metres or, beyond that depth, to where the exploitation of the seabed is possible.

Both these Acts require the holding of licences and empower the Minister to prohibit fishing activities as necessary for the conservation of resources and the management of the fisheries.

Foreign Fishing Boats Levy Act 1981; *Fisheries Agreements (Payments) Act* 1981

These Acts facilitate the imposition and collection of access fees for foreign boats fishing in the Australian Fishing Zone.

Administration

Australian fisheries are administered by the authority having jurisdiction over the waters concerned. In inland waters and in waters within territorial limits, administration is the responsibility of the State or Territory fisheries authority. In proclaimed waters, and on the continental shelf beyond territorial limits, administration is the responsibility of the Commonwealth Government which by agreement, has delegated to State fisheries authorities the necessary authorities for day-to-day administration of the Acts.

The Commonwealth and all State Parliaments as well as the Northern Territory House of Assembly have enacted amendments to fishery laws for the purpose of implementing the fisheries elements of the offshore constitutional settlement adopted by the Premiers' Conference in 1979. Those amendments, which came into force on 14 February 1983, authorise the Commonwealth and one or more States to enter into a formal legal arrangement to apply a single law (Commonwealth or State) to the management of a particular fishery from low water mark and to vest executive power under that law in:

(i) a joint authority, the membership of which would comprise the Commonwealth and the relevant State or States;
(ii) a State alone; or
(iii) the Commonwealth alone.

The administration of the fisheries is directed to a number of objectives of which the two most important are: conservation and management of the living resources of the Australian Fishing Zone to ensure that they are not endangered by over exploitation; and achievement of the optimum utilisation of the living resources by the Australian fishing industry and foreign interests. Consistent with these objectives, a number of controls have been introduced to prevent the depletion of the more heavily fished species. These controls take the form of seasonal closures, gear limitations, minimum size requirements and limited access rights, as well as outright prohibitions on the taking of certain species.

The Fisheries Development Trust Account (established under the *Fishing Industry Act* 1956) and the Fishing Industry Research Trust Account (established under the *Fishing Industry Research Act* 1969) are available to support financially, projects for the development and management of the fisheries and fishing industry which are consistent with the purposes of those Acts. The former was established with the proceeds of the sale of the assets of the Australian Whaling Commission and is replenished from Consolidated Revenue as necessary. The latter is a matching fund into which is paid each year an appropriation from Commonwealth Government Revenue equal to amounts collected from the fishing industry by the State Fisheries Authorities and paid into appropriate State research accounts for the same purpose.

Research

The main aim of fisheries research in Australia is to provide a background of biological, technical and economic information which will provide guidance for the efficient and rational utilisation of fisheries resources. To this end much of the research already undertaken has been directed at formulating recommendations for management of various fisheries. Research work, including feasibility fishing projects involving foreign fishing vessels, is also carried out and is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, greater economy in operations and the use of more efficient equipment and methods.

Organisations in Australia at present engaged in research into fisheries matters are:

(i) CSIRO Division of Fisheries Research, which has its headquarters and main laboratory at Cronulla, N.S.W. and regional laboratories in Western Australia and Queensland (fisheries science);
(ii) CSIRO Division of Oceanography which has its headquarters and laboratory at Cronulla, N.S.W.;
(iii) CSIRO Division of Food Research, conducts research into handling, storage, processing and transportation of fish at its laboratory in Hobart, Tasmania;
(iv) State fisheries departments (fisheries laboratories have been established in Sydney, Melbourne, Brisbane, Perth, Hobart, Darwin and Cairns); research vessels are operated by New South Wales, Victoria, Western Australia, Queensland and Tasmania;
(v) Fisheries Division, Department of Primary Industry, Canberra (economic and management research, fishing technology, extension and education service);
(vi) Bureau of Agricultural Economics, Canberra (economic and marketing research); and
(vii) private fishing companies (surveys of fisheries resources, research into handling, processing and marketing).

Boats and equipment used in fisheries

Fish, crustaceans and molluscs (edible)

The boats used for the estuarine fisheries are mostly small vessels propelled by diesel or petrol engines of low power. The offshore vessels range up to 40 metres in length and are almost invariably powered by diesel engines. Most of them have either insulated holds and carry ice, or are equipped with dry or brine refrigeration. Some rock lobster vessels are fitted with wells in which the catch is kept alive.

The following are the types of equipment most commonly used in the main fisheries: *mullet*, beach seine, gill-net; *shark* (edible), long-lines, gill-net; *Australian salmon*, beach seine; *snoek*, trolling lines; *flathead*, Danish seine, otter trawl; *snapper*, long-lines, traps, gill-net, hand-line; *morwong*, Danish seine, otter trawl, traps; *whiting*, handlines, Danish seine, beach seine, gill-net; *garfish*, beach seine; *Spanish mackerel*, trolling lines; *tuna*, pole and live-bait, purse seine, trolling lines (lampara nets and purse seines are used for taking live bait for tuna); *prawns*, otter trawl, beam trawl, beach seine net; *rock lobster*, pots, traps; *scallops*, dredge, otter trawl; *abalone*, diving using hookah gear; and *pilchards, anchovies, jack mackerel* and *striped tuna*, purse seine.

Pearls, pearl-shell and trochus-shell

Ketch-rigged luggers about 15 metres long which carry crews of eight to fourteen members are used for pearl-shell fishing in northern Australia.

Production, processing and domestic marketing of fisheries products

Value of fisheries production

The following table shows the gross value of fishing by States. As the value of materials used in the course of production is not available for all States, it is not possible to show a comparison of net values. Gross value of production is the value placed on recorded production at the wholesale price realised in the principal markets. In general, the 'principal markets' are the metropolitan markets in each State, although, in cases where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the principal markets. Gross value includes marketing costs which were estimated at $18.8 million for Australia for the year 1979-80. Details on marketing costs are not available for 1980-81 and subsequent years.

Australian totals are not available beyond 1980-81, due to estimates for Queensland not being available.

FISHERIES: GROSS VALUE OF PRODUCTION
($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
				GROSS VALUE				
1977–78 . .	39,665	17,977	(*a*)40,808	(*b*)23,615	88,340	12,609	10,337	(*c*)233,351
1978–79 .	42,698	20,025	58,214	(*b*)29,924	80,233	14,636	19,576	(*c*)(*d*)279,258
1979–80 . .	58,661	27,696	(*e*)62,789	(*b*)35,438	85,652	20,463	16,806	(*c*)(*d*)325,632
1980–81 . .	73,048	33,440	(*e*)(*f*)86,292	(*b*)46,606	82,764	26,514	19,518	(*c*)(*d*)386,533
1981–82 . .	74,983	30,525	n.a.	52,062	99,254	32,896	18,392	n.a.
1982–83 . .	73,896	31,022	n.a.	61,234	126,208	31,140	19,286	n.a.

(*a*) Incomplete: excludes oysters and rock lobster. (*b*) Incomplete: excludes octopus, cuttlefish, oysters and scallops. (*c*) Incomplete: *see* individual States. (*d*) Includes value of pearling which has been excluded from State totals. (*e*) Incomplete: excludes rock lobster. (*f*) Incomplete: excludes shark.

Production of selected fisheries

SELECTED FISHERIES PRODUCTS: PRODUCTION AND GROSS VALUE
1982–83

Product	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
				QUANTITY (tonnes)(*a*)				
Fish	24,029	11,340	n.a.	20,098	16,486	1,847	1,694	n.a.
Crustaceans	3,246	704	n.a.	5,636	15,721	1,890	2,474	n.a.
Molluscs (edible)	9,423	13,399	n.a.	1,980	4,759	15,177	59	n.a.
				GROSS VALUE ($'000)				
Fish	27,676	15,360	n.a.	18,450	12,170	3,166	3,232	n.a.
Crustaceans	19,875	4,195	n.a.	38,260	110,401	11,787	15,974	n.a.
Molluscs (edible)	26,345	11,467	n.a.	4,524	3,637	16,187	80	n.a.

(*a*) Estimated live weight.

SELECTED FISHERIES PRODUCTS: PRODUCTION, AND GROSS VALUE, AUSTRALIA

Product	*1978–79*	*1979–80*	*1980–81*
	QUANTITY (tonnes)		
Fish(*a*)(*b*)	61,444	(*c*)68,937	(*c*)76,226
Crustaceans(*a*)	37,900	(*c*)38,062	(*c*)43,639
Molluscs (edible)(*a*)	25,285	(*c*)34,831	(*c*)41,763
Pearl-shell(*d*)(*e*)	185.0	309.6	226.0
Trochus-shell(*d*)(*e*)	—	n.a.	n.a.
	GROSS VALUE ($'000)		
Fish(*b*)	56,501	(*c*)72,893	(*c*)82,381
Crustaceans	176,451	(*c*)187,262	(*c*)218,895
Molluscs (edible)	32,355	(*c*)47,351	(*c*)66,908
Pearl-shell(*d*)(*e*)	188	905	534
Trochus-shell(*d*)(*e*)	—	n.a.	n.a.

(*a*) Estimated live weight. (*b*) Excludes shark and freshwater fish caught. (*c*) Incomplete *see* individual States in table above. (*d*) Excludes manufacturing shell produced from pearl culture operations. (*e*) *Source:* Department of Primary Industry, year ended 31 December.

Pearls, pearl-shell and trochus-shell

PEARL CULTURE AND PEARL AND TROCHUS SHELL FISHING OPERATIONS(*a*)

(*Source:* Department of Primary Industry)

		1980	*1981*	*1982*
QUANTITY				
Pearl and Trochus shell fishing operations—				
Production of—				
Pearl shell(*b*)	tonne	226.0	143.0	135.0
Trochus shell	tonne	n.p.	n.p.	n.p.
Pearl culture operations—				
Live shell introduced	No.	347,397	435,184	350,968
	tonne	107.0	174.0	192.0
Production—				
Round and baroque pearls	No.	65,982	68,422	67,075
	momme(*c*)	50,704	50,912	49,305
Half pearls	No.	191,781	134,414	191,357
Manufacturing shell	tonne	75.1	56.0	42.0
VALUE ($'000)				
Pearl and Trochus shell fishing operations—				
Production of—				
Live pearl shell		911	1,513	2,783
Pearl shell		534	301	489
Trochus shell		n.p.	n.p.	n.p.
Pearl culture operations—				
Production of—				
Round and baroque pearls		15,340	15,404	10,555
Half pearls		1,078	914	1,332
Manufacturing shell		328	115	91

(*a*) Figures refer to the year ended January for the Northern Territory and Queensland and to the year ended December for Western Australia. (*b*) Excludes manufacturing shell produced from pearl culture operations. (*c*) A momme is a pearl weight measurement equivalent to 3.769 grams.

Processing of fish, crustaceans and molluscs

Processing plants are located strategically throughout Australia close to fishing grounds. A number of shore-based plants have been established in remote areas of northern Australia to service the expansion of the northern prawn fishery.

Rock lobsters, prawns, abalone and scallops are frozen for export; tuna, snoek, Australian salmon and abalone are canned; small amounts of fish are smoked; and some molluscs are bottled. Hand labour is still used extensively in processing operations, but mechanisation is being progressively introduced.

Ice is used extensively for the chilling of fish taken in estuarine and inshore fisheries. Refrigeration is used particularly on vessels operating in the tuna fishery and prawn fisheries to chill or freeze the catch.

Fish, crustaceans and molluscs intended for export are processed in establishments registered under the Export (Fish) Regulations. Edible fish for local consumption is mainly dispatched fresh-iced to markets.

Domestic marketing of fisheries' products

Although virtually the whole of the tuna and Australian salmon catches are canned, the greater part of Australian fish production is marketed fresh or frozen.

Marketing arrangements for fresh fish vary. In New South Wales, fish marketing is the responsibility of the Fish Marketing Authority which operates the Metropolitan Fish Markets. In other coastal centres of New South Wales, fishermen's co-operatives may become registered as local fish markets. In Queensland until recently the Fish Board sold all production on behalf of fishermen in that State, except fish intended for export and interstate trade. However, new legislation was passed in March 1982 giving fishermen a choice of selling their catch either through the Fish Board, Fishermens' co-operatives or licensed private processors and wholesalers. In Victoria, Western Australia, South Australia and Tasmania, there is no restriction on market outlets. In Victoria, Western Australia and South Australia, most fish is sent to metropolitan wholesale fish markets for auctioning; small quantities are processed for sale locally, chiefly by co-operatives. Nearly all fresh fish in Tasmania is consigned direct to processors. The principal outlets for fish products in Australia are retail and catering establishments.

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CHAPTER 15

WATER RESOURCES

This chapter is divided into two major parts:—existing water resources in Australia and the management of these resources. The former provides information on such topics as the geographic background to water resources, surface and groundwater supplies and use and the drainage divisions in Australia. The latter summarises Australian and State assessment and management of water resources.

For information concerning general, descriptive and historical matter *see* Year Book No. 37, pages 1096–1141 and Year Book No. 51, pages 228–31.

An article on droughts in Australia appeared in Year Book No. 54, pages 991–6.

Introduction

Rainfall, or the lack of it, is the most important single factor determining land use and rural production in Australia. The chapter Climate and Physical Geography of Australia contains details on geographical and climatic features that determine the Australian water pattern. Australia is the driest continent in the world. The scarcity of both surface and groundwater resources together with the low rates of precipitation, which restrict agriculture (quite apart from economic factors), has led to extensive programs to regulate supplies by construction of dams, reservoirs, large tanks and other storages.

Geographic background

General. Water resources are determined by rainfall, evaporation and physical features including soil, vegetation and geology. Chapter 2, Climate and Physical Geography of Australia, contains a detailed description of the climatic features of the country. A brief description of the landforms appears in Year Book No. 61, pages 25–27. In assessing Australia's water resources, dependability and quality of supply must be considered, as well as quantity.

Topography. The major topographical feature affecting the rainfall and drainage patterns in Australia is the absence of high mountain barriers. Australia's topographical features range from sloping tablelands and uplands along the east coast Main Divide through the low plain and marked depression in the interior to the Great Western Plateau.

Drainage. Only one-third of the Australian land mass drains directly to the ocean, mainly on the coastal side of the Main Divide and inland with the Murray-Darling system. With the exception of the latter, most rivers draining to the ocean are comparatively short but account for the majority of the country's average annual discharge.

The interior lowlands exhibit endoreic drainage patterns and surface drainage is totally absent from some arid areas of low relief.

Climate. Australia's large area (7.7 million square kilometres) and latitudinal range (3,700 kilometres) have resulted in climatic conditions ranging from alpine to tropical. Two-thirds of the continent is arid or semi-arid, although good rainfalls (over 800 mm annually) occur in the northern monsoonal belt under the influence of the Australian-Asian monsoon and along the eastern and southern highland regions under the influence of the great atmospheric depressions of the Southern Ocean. The effectiveness of the rainfall is greatly reduced by marked alternation of wet and dry seasons, unreliability from year to year, high temperatures and high potential evaporation.

Settlement. The availability of water resources controls, to a large degree, the possibility and density of settlement; these, in turn, influence the quality of the water through production and disposal of waste. Most early settlements were established on the basis of reliable surface water supplies and, as a result, Australia's population is concentrated along the coast, mainly in the comparatively fertile, well-watered east, south-east and far south-west.

As settlement spread into the dry inland grazing country, the value of reliable supplies of underground water was realised. Observations of the disappearance of large quantities of the rainfall precipitated on the coastal ranges of eastern Australia eventually led to the discovery of the Great Artesian Basin which has become a major asset to the pastoral industry. Development, however, has not been without costs. Significant environmental degradation and deterioration in water quality are becoming evident.

For further information on the influence of water resources on the spread of settlement in Australia *see* Year Book No. 61, page 860.

Surface supplies

Distribution and volume. As described above, permanent rivers and streams flow in only a small part of the continent. The average annual discharge of Australian rivers has been recently assessed at 440 x 10^9 cubic metres, of which 118 x 10^9 cubic metres is now estimated to be exploitable for use on a sustained yield basis. This is small in comparison with river flows on other continents. In addition, there is a pronounced concentration of runoff in the summer months in northern Australia while the southern part of the continent has a distinct, if somewhat less marked, winter maximum.

Variability of flow. Even in areas of high rainfall, large variability in flow means that, for local regional development, most streams must be regulated by surface storage. However, in many areas evaporation is so great that storage costs are high in terms of yield. Extreme floods also add greatly to the cost of water storage, because of the need for adequate spillway capacity.

Potential development. Some 84 per cent of all water used in Australia is surface water. This quantity is about 15 x 10^9 cubic metres a year and represents about 13 per cent of the possible usable surface water available in Australia; it does not include the amount diverted for hydro-electric power generation and other instream purposes which does not affect the quantity of water available. However, the great variability of river discharge, high evaporation, lack of sites for storage on many catchments, and economic considerations limit potential development. There is, however, considerable scope for greater efficiency in water use.

Groundwater supplies

About 80% of Australia is significantly dependent on groundwater supplies. Australia's estimated sustainable groundwater yield is 72 x 10^9 cubic metres, and annual groundwater usage is estimated at about 2.5 x 10^9 cubic metres.

Groundwater is divided according to its occurrence in the three main classes of aquifer:

(i) *Shallow unconsolidated sediments* comprise alluvial sediments in river valleys, deltas and basins; aeolian (windblown) sediments which generally occur in coastal areas; and lacustrine (lake) sediments. These sediments are often highly permeable and porous. Permeability and porosity may vary markedly according to orientation. Unconsolidated aquifers of this group generally occur at depths of less than 150 m and are often readily accessible to sources of water for recharge. Marked seasonal variations in water level are common.

(ii) *Sedimentary rocks* are generally made up of consolidated sediments. The aquifers owe their porosity to small voids between the grains which are often well compacted and cemented. They often cover significant areas, being continuous and of appreciable thickness. Rock strata usually dip quite gently. Nevertheless, over the full extent of the larger sedimentary basins, aquifers may reach great depths. Areas where recharge takes place may be small in relation to the extent of the aquifers. Water quality in individual aquifers may be quite good and fairly uniform over large areas. Some sediments contain a number of permeable and impermeable layers, creating a vertical sequence of separate aquifers, and water quality may vary greatly between them.

(iii) *Fractured rocks* comprise hard igneous and metamorphosed rocks which have been subjected to disturbance and deformation. Aquifers resulting from the weathering of any rock type are also included in this group. Water is transmitted mainly through joints, bedding planes, faults, caverns, solution cavities and other spaces in the rock mass.

The quality of groundwater varies considerably and sources are subject to pollution in much the same way as surface supplies. As a general rule, groundwater from shallow unconsolidated sediments is of good quality but there are instances where groundwater has been polluted, particularly around major urban centres, by sewerage effluent, drainage from refuse tips and from specific industrial pollutants. Supplies from sedimentary basins and fractured rocks are more variable in both quality and quantity, especially in the more arid regions of the continent. High nitrate concentrations tend to be a common occurrence in groundwaters in northern and central Australia.

Drainage divisions and the use of surface and groundwaters

To promote a unified approach, river basins or groups of river basins have been adopted as the primary units of assessment. The *Review of Australia's Water Resources 1975* (Department of National Development and Energy, Australian Water Resources Council, Canberra) contains a summary of the 244 river basins grouped into twelve divisions, together with a map showing the divisions. (*See* below.)

The conjunctive approach to water resources, even to importing water from outside the region, generally makes more water available for use than would be the case with independent use of the various sources. Year Book No. 61, pages 867–8 contains details of the conjunctive use of surface and groundwaters.

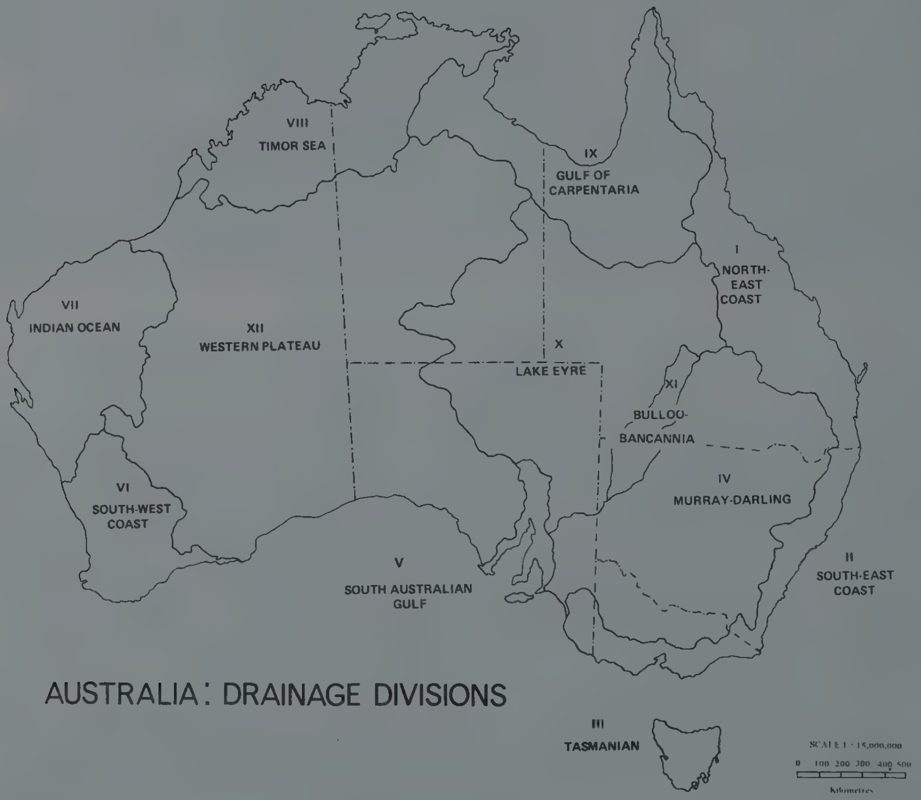
VIII
TIMOR SEA
IX
GULF OF
CARPENTARIA
I
NORTH-
EAST
COAST
VII
INDIAN OCEAN
XII
WESTERN PLATEAU
X
LAKE EYRE
XI
BULLOO-
BANCANNIA
IV
MURRAY-DARLING
VI
SOUTH-WEST
COAST
V
SOUTH AUSTRALIAN
GULF
II
SOUTH-EAST
COAST
AUSTRALIA: DRAINAGE DIVISIONS
III
TASMANIAN
SCALE 1 : 15,000,000
0 100 200 300 400 500
Kilometres

PLATE 41

In a recent report on Australia's water resources—*Water 2000*, Department of Resources and Energy, Canberra 1983, the exploitable yield of surface water for each river basin (aggregating to Drainage Divisions) at the point of lowest practical downstream development, using the type of hydraulic structure considered technically feasible, has been re-assessed. These estimates take into account average annual flow, variability of flow, water quality and the availability of suitable sites for storage, but do not take into account economic factors.

SURFACE WATER: ESTIMATES OF RUNOFF, TOTAL POSSIBLE EXPLOITABLE YIELD AND CURRENT USE BY DRAINAGE DIVISIONS

Sources: Snowy Mountains Engineering Corporation 1983; Australian Water Resources Council 1981

		Surface water (thousand million M^3 per annum)			
Drainage division		*Runoff*	*Total possible exploitable yield(a)*	*Use(b)*	*Use as percentage of exploitable yield(%)*
I	North-East Coast	91	26	0.9	3
II	South-East Coast	45	15	2	13
III	Tasmania	53	35	0.3	1
IV	Murray-Darling	23	13	11	85
V	South Australian Gulf	1	0.3	0.1	33
VI	South-West Coast	7	2	0.4	20
VII	Indian Ocean	4	0.2	ns	—
VIII	Timor Sea	81	16	0.1	1
IX	Gulf of Carpentaria	131	10	ns	—
X	Lake Eyre	3	0.1	ns	—
XI	Bulloo-Bancannia	1	ns	ns	—
XII	Western Plateau	ns	ns	ns	—
Australia	. . . .	**440**	**117.6**	**14.8**	**13**

(*a*) Exploitable yield is estimated total divertible fresh and marginal water at the lowest practicable point of impoundment, taking account of technical factors but not economic, environmental or social constraints. (*b*) Urban, industrial and agricultural uses of water only. In-stream uses such as hydro-electric generation are not included.
ns = not significant.

Water quality

The quality of surface waters in Australia varies greatly and is controlled by climate, geology, stream flow rates, biological activity and land use. Most of the variability is related to water events such as storm flows, floods and drought. Water pollution is generally at a low level compared to other similarly developed countries. The great majority of Australians enjoy domestic, irrigation and recreational waters of good to excellent quality.

Very little is known of the water quality conditions which prevailed prior to European settlement and development in Australia. It is thus difficult to judge the full impact of urban, agricultural, industrial and mining developments, and the effects that water resource development measures, such as large dams, have had on the quality of the resource. Levels of toxic pollutants have undoubtedly increased, as have the salt and sediment loads of the rivers. While water quality would, at times, have been poor prior to settlement, quality levels are believed to have generally declined. On the other hand, regulation of major rivers has reduced some of the water quality impacts of floods and droughts.

A better appreciation of water quality in recent times has led to much improved management. Measurable improvements in water quality over the last decade have resulted from pollution controls in industry and mining, and more effective sewage treatment. Means of control of pollution from widespread agricultural activity such as problems of salinity and turbidity, are under development.

The major water quality issues and problems faced in Australia are salinity, turbidity, excessive plant and algal growths (eutrophication), and water treatment for small community water supplies. There is also a lack of data, information and research on all aspects of water quality and the protection of aquatic species and habitats. Many of the severe pollution problems found in other countries have been avoided in Australia, because of the general absence of highly polluting industries and the location of major cities on or near the coastline enabling ocean disposal of wastes.

Groundwater is an important substitute for surface water in many parts of the country such as in the arid interior where the Great Artesian Basin provides the only reliable continuous supply of water for stock and domestic purposes. This Basin underlies 23 per cent of the continent but the high ratio of sodium to calcium and magnesium ions has an adverse effect on soil structure, rendering it impervious and generally unsuitable for irrigation.

Groundwater is increasing in importance as a source of water for irrigation, industry and domestic supply. The possible yield and use of groundwaters in the twelve drainage divisions is shown below.

Increasing use is made of conjunctive schemes, for example, where groundwater supplies are tapped to augment surface water or where, as in the Burdekin Delta, groundwater aquifers are artificially recharged during the summer wet season to enable water to be stored at low cost with negligible evaporation.

GROUNDWATER ESTIMATES OF TOTAL POSSIBLE YIELD AND CURRENT USE BY DRAINAGE DIVISION

Sources: Bureau of Mineral Resources 1983; Australian Water Resources Council 1981

Drainage division		*Groundwater (thousand million M^3 per annum)* *Total possible yield (a)*	*Use (b)*	*Use as percentage of possible yield (%)*
I	North-East Coast	3	0.7	23
II	South-East Coast	4	0.5	13
III	Tasmania	16	ns	—
IV	Murray–Darling	6	0.8	13
V	South Australian Gulf	0.03	0.08	267(*c*)
VI	South-West Coast	2	0.2	10
VII	Indian Ocean	0.3	0.05	17
VIII	Timor Sea	21	0.03	0.1
IX	Gulf of Carpentaria	14	0.02	0.1
X	Lake Eyre	2	0.02	1.0
XI	Bulloo–Bancannia	0.05	ns	—
XII	Western Plateau	2	0.03	2.0
Australia	. . . .	70.38	2.43	3.5

(*a*) Potential yield is annual recharge plus depletion of the aquifer at a rate of 1% per annum. Fresh groundwater has less than 1000 parts per million total dissolved solids. (*b*) Urban, industrial and agricultural uses only of water of any quality. (*c*) Includes use of a significant proportion of marginal and brackish water. If groundwater in excess of 1000 parts per million total dissolved solids were included, the ratio would be 88%. ns = not significant

The first *National survey of water use in Australia*, published in 1981, gathered water use data on a national scale. The data provides a sound basis for the efficient utilisation of existing resources and for the planning of future projects. A summary of the results of the survey is given in the table below.

ESTIMATED ANNUAL WATER USE IN 1977 FOR AN AVERAGE CLIMATIC YEAR BY DRAINAGE DIVISION

(*Source*: The first *National survey of water use in Australia*; Department of National Development and Energy; Australian Water Resources Council, Occasional Papers Series No. 1; AGPS 1981)

Drainage division	*Surface waters ($10^6 M^3$)*				*Ground waters ($10^6 M^3$)*				*Totals ($10^6 M^3$)*			
	Urban industrial	*Irrigation*	*Other rural*	*Total (a)*	*Urban industrial*	*Irrigation*	*Other rural*	*Total (a)*	*Urban industrial*	*Irrigation*	*Other rural*	*Total (a)*
North-East Coast .	388	473	–	861	40	670	–	710	427	1,210	126	1,770
South-East Coast .	1,400	453	186	2,030	125	368	52	545	1,540	821	238	2,590
Tasmania . . .	157	110	25	292	0.5	–	–	0.5	157	110	25	292
Murray-Darling .	287	10,200	491	11,000	42	504	233	778	337	10,700	775	11,800
South Australian Gulf	37	24	10	70	9	63	7	79	222	88	29	339
South-West Coast .	187	224	20	431	182	24	5	210	369	248	25	642
Indian Ocean . .	0.5	–	1	1	36	6	5	47	36	6	6	48
Timor Sea . . .	14	67	6	87	15	0.5	10	25	29	68	19	115
Gulf of Carpentaria	20	2	–	22	15	0.5	1	16	35	2	37	73
Lake Eyre . . .	2	1	2	5	10	1	5	16	13	1	43	57
Bulloo-Bancannia .	–	–	–	–	–	–	–	–	1	–	3	4
Western Plateau .	0.5	–	1	1	5	2	19	26	21	2	22	44

(*a*) Totals may not be the sum of the figures in any row or column as figures have been rounded, and water sources such as farm dams, not falling in the categories of surface or groundwater, have been included in the totals section.

Total water use (gross applied water) in Australia for 1977, adjusted for average climatic conditions, has been estimated at 17 800 x 10^6 cubic metres annually, corresponding to an overall total per capita use of about 3,500 litres per day. Of this total, approximately 74 per cent is for irrigation, 18 per cent is for urban/industrial uses and 8 per cent is for other rural water use. Withdrawals for hydro-electric power have not been included. In terms of sources for the water used, by far the largest proportion (about 84 per cent) of water is drawn from surface water sources. Groundwater sources, although of importance in some regions, account for only 14 per cent of the water used. A very small proportion, less than 0.5 per cent of water used is derived from artificial recharge or from reclaimed water. Sources for the remaining water used were not indicated and would include supplies from small bores, rainwater tanks, farm dams and the like. Of the total surface water withdrawals, 77 per cent are used for irrigation, 18 per cent for urban/industrial purposes and 5 per cent for other rural purposes. Corresponding figures for groundwater withdrawals are 67 per cent, 18 per cent and 14 per cent respectively.

Major dams and reservoirs

A map titled *Australia—Dams and Storages*, published in 1975 by the Department of Minerals and Energy, shows the location, height of dam wall, capacity and purpose of Australia's major dams and water storages. In the lists below, only dams with a gross reservoir capacity of more than 100 million cubic metres have been included. Hume Reservoir lies on the New South Wales-Victoria border.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name and year of completion	*Location*	*Gross capacity (million cubic metres) (a)*	*Height of wall (metres) (b)*	*Purpose*
		NEW SOUTH WALES		
Eucumbene (1958)	Eucumbene River	4,807	116	H/E, IR, R, U
Hume (1936, 1961)	Murray River, near Albury	3,038	51	H/E, IR, R, U
Warragamba (1960)	Warragamba River	2,057	137	H/E, U
Menindee Lakes (1960)	Darling River, near Menindee	1,794	18	IR, R, U
Burrendong (1967)	Macquarie River, near Wellington	1,677	76	F/C, IR, R, U
Blowering (1968)	Tumut River	1,628	112	H/E, IR, R
Copeton (1976)	Gwydir River	1,364	113	IR, R, U
Wyangala (1936, 1971)	Lachlan River	1,220	85	IR, R
Burrinjuck (1927, 1956)	Murrumbidgee River	1,026	79	IR, R
Talbingo (1971)	Tumut River	921	162	H/E, IR, R, U
Jindabyne (1967)	Snowy River	688	72	H/E, IR, R, U
Lake Victoria (1928)	Murray River, near S.A. border	680	–	IR, R, U
Keepit (1960)	Namoi River, near Gunnedah	423	55	F/C, IR, U
Windamere (1984)	Cudgegong River, near Mudgee	368	69	IR
Glenbawn (1958)	Hunter River, near Scone	360	78	F/C, IN, IR, R, U
Glennies Creek (1983)	Hunter Valley, near Singleton	284	67	IN, IR ,R, U
Tantangara (1960)	Murrumbidgee River	254	45	H/E, IR ,R, U
Avon (1927)	Avon River	214	72	U
Mangrove Creek (1983)	Mangrove Creek, near Gosford	176	79	U
Grahamstown (1969)	Grahamstown, near Newcastle	153	12	IN, U
Lake Brewster (1952)	Lachlan River, near Hillston	150	–	IR, R
Liddell (1968)	Gardiner Creek, near Muswellbrook	148	41	IN
Tallowa (1977)	Shoalhaven River, near Nowra	135	43	U
Googong (1978)	Queanbeyan River	125	59	U, F/C
		VICTORIA		
Dartmouth (1979)	Mitta Mitta River	4,000	180	F/C, H/E, IN, IR, R
Eildon (1927, 1955)	Upper Goulburn River	3,392	79	F/C, H/E, IN, IR, R
Thomson (1984)	Thomson River, near Moe	1,175	164	IR, U
Waranga (1910)	Near Rushworth (Swamp)	411	12	IR, U
Mokoan (1971)	Winton Swamp, near Benalla	365	10	IR
Rocklands (1953)	Glenelg River	336	28	R, U
Eppalock (1964)	Campaspe River	312	45	IR, U
Cardinia (1973)	Cardinia Creek, near Emerald	287	79	U
Upper Yarra (1957)	Yarra River	207	89	U
Blue Rock (1984)	Tanjil River, near Moe	200	75	IN, U
Glenmaggie (1927, 1958)	Macalister River	190	37	IR
Cairn Curran (1958)	Loddon River, near Newstead	149	44	IR
Yarrawonga (1939)	Murray River	117	22	IR
Toolondo (1952,1960)	Natural depression, near Horsham	107	–	IR, R
		QUEENSLAND		
Fairbairn (1972)	Nogoa River, near Emerald	1,440	49	IN, IR
Wivenhoe (1984)	Brisbane River, near Ipswich	1,150	59	F/C, H/E, U
Somerset (1959)	Stanley River, near Esk	893	50	U
Fred Haigh (1975)	Kolan River, near Gin Gin	586	52	IR
Ross River (1974)	Near Townsville	417	35	F/C, U
Tinaroo Falls (1958)	Barron River, near Atherton	407	47	H/E, IR
Glenlyon (1976)	Pike Creek, near Stanthorpe	254	62	IR
Awoonga High Down (1984)	Boyne River, near Gladstone	250	45	IN. U
Boondooma (1983)	Boyne River, near Proston	212	50	IN, IR
North Pine (1975)	North Pine, near Brisbane	205	44	U
Koombooloomba (1961)	Tully River, near Ravenshoe	201	52	H/E
Wuruma (1968)	Nogo River, near Eidsvold	194	46	IR
Eungella (1969)	Broken River, near Eungella	131	46	IN, U
Julius (1977)	Leichhardt River, near Mt Isa	127	35	IN, U
Leslie Dam Stage II (1985)	Sandy Creek, near Warwick	108	34	IR, U
Lake Moondarra (1957)	Leichhardt River, near Mt Isa	107	27	IN, U
Beardmore (1972)	Balonne River, near St George	101	15	IR, R

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name and year of completion	*Location*	*Gross capacity (million cubic metres) (a)*	*Height of wall (metres) (b)*	*Purpose*
	WESTERN AUSTRALIA			
Lake Argyle (Ord) (1971)	Ord River, near Kununurra	5,720	99	F/C, H/E, IR
South Dandalup (1973)	Near Dwellingup	208	41	U
Wellington (1933, 1944, 1960)	Collie River	185	37	IR, R
Serpentine (1961)	Serpentine River	185	55	U
	TASMANIA			
Lakes Gordon and Pedder (1974)				
Gordon	South West	11,728	140	H/E
Scotts Peak		2,963	43	
Serpentine			38	
Edgar			17	
Miena (1967)	Great Lake	2,390	18	H/E
Lake St Clair (1938)	Central Plateau	2,000 (est.)	3	H/E
Mackintosh (1980)	Mackintosh River, near Queenstown	922	75	H/E
Tullibardine (1979)	Tullibardine River, near Queenstown		25	
Lake Echo (1956)	Lake Echo	725	19	H/E
Arthur's Lake (1965)	Source of Lake River, near Great Lake	571	17	H/E
Lake King William (Clark) (1949, 1966)	Derwent River	540	67	H/E
Devils Gate (1969)	Forth River, near Devonport	180	84	H/E
Rowallan (1967)	Mersey River	130	43	H/E
Bastyan (1983)	Pieman River, near Queenstown	124	75	H/E
Cethana (1971)	Forth River, near Devonport	108	110	H/E
	NORTHERN TERRITORY			
Darwin River (1972)	Darwin River	259	31	U

(*a*) Includes 'dead water', i.e., water below the operational outlet of the reservoir. (*b*) As a general rule, the figures shown for height of wall refer to the vertical distance measured from the lowest point of the general foundation to the crest of the dam, i.e., the level of the roadway or walkway on the dam.

ABBREVIATIONS: H/E—hydro-electricity, F/C—Flood control and/or mitigation, IN—Industrial and/or mining, IR—Irrigation, R—Rural-stock and domestic, U—Urban supplies.

MAJOR DAMS AND RESERVOIRS UNDER CONSTRUCTION OR PROJECTED

Name	*Location*	*Gross capacity (million cubic metres)(a)*	*Height of wall (metres)(b)*	*Purpose*
	UNDER CONSTRUCTION			
Burdekin Falls Dam	Burdekin River, near Townsville, Qld	1,860	68	IR
Huxley Dam	King River, near Queenstown, Tas.	1,060	100	H/E
Glenbawn Dam enlargement	Hunter River, near Scone, N.S.W.	870	100	F/C, IN, IR, R, U
Lower Pieman	Pieman River, near Queenstown, Tas.	641	122	H/E
Split Rock	Manilla River, Namoi Valley N.S.W.	370	66	Irrigation
Callide Dam (Stage II)	Callide Creek, near Biloela, Qld	127	35	IR, U
Bjelke Petersen	Barker Creek, near Murgon, Qld	125	33	IR
Harding Dam	Harding River, W.A.	114	42	Water supply
	PROJECTED			
Spencer	Denison Creek, near Nebo, Qld	127	24	Mining, water supply

For footnotes and abbreviations *see* previous table.

Water management

Australia's water resources are managed by a multitude of irrigation authorities, metropolitan water boards, local government councils and private individuals. State authorities dominate the assessment and control of water resources as, under the Commonwealth Constitution, primary responsibility for management of water rests with the individual State governments. The Commonwealth Government is responsible for matters relating to its Territories, and participates indirectly through financial assistance or directly in the co-ordination or operation of interstate projects through bodies such as the River Murray Commission. In other instances where political boundaries intersect some river basins, co-operation between governments has been necessary to develop resources.

Australia's attitudes to water resources management have changed substantially over the last twenty years. Water management is no longer seen just in terms of storing water and regulating streams for consumption, but also in terms of conserving unregulated streams in an unmodified landscape for wild life preservation or recreation purposes or for possible social or economic use by future generations. In addition, agricultural, industrial and urban development has led to greater attention being paid to water quality management.

The development of water resources in the States has an important bearing on the Commonwealth's broad interests in economic management, resource allocation, foreign exchange earnings, distribution of income and related matters. Consequently, the Commonwealth has participated in water resource matters in the States in instances of mutual Commonwealth/States concern or in the national interest.

Water 2000—A Perspective to the Year 2000

In 1982, the Commonwealth Government commissioned a study to provide a perspective on Australia's water resource needs and problems to the year 2000. The Steering Committee Report and a series of 13 consultants' reports were completed in 1983 and are available for purchase by the general public at Australian Government Publishing Service outlets.

The Water 2000 report indicated in general terms that Australia has sufficient surface and underground water to meet anticipated demands to the year 2000 at reasonable costs; however, regional or local shortages of water supply already occur and will continue.

In a general context, the report identified a number of major issues facing the water industry over the next two decades.

These were:

- protection and improvement of water quality
- more efficient use of currently available water supplies
- conservation of existing water supplies by more appropriate allocation and financial policies
- co-ordinated management and use of water and land resources
- adequate provision for instream uses
- improvements in data collection and analysis and information dissemination
- provision of adequate funding for water resources purposes including research, and
- continuing Commonwealth Government involvement.

Financial constraints, as well as environmental and social considerations were seen likely to lead to an increasing emphasis on greater efficiency in the use of existing supplies including the use of treated wastewater and marginal quality water for non-potable purposes. Substantial scope was seen to exist for improved efficiency in water use, particularly in irrigation.

Commonwealth water policy

In September 1984, the Commonwealth released its new water policy based on the recommendations of the Water 2000 report. Objectives of the new policy are:

- the availability of water, adequate in quantity for all beneficial uses
- the adoption of measures which improve the efficiency of water supply and use
- the development of a comprehensive approach to inter-related water and land management issues
- the encouragement of comprehensive long-term plans for the development and management of water resources, and
- the implementation of financial and economic policies which distribute the costs of water supplies equitably and provide incentives for the more economic use of resources at government and individual level.

As part of the new water policy, funds will continue to be provided to the States under a new program, the Federal Water Resources Assistance Program (FWRAP), to operate as from 1984-85. Funds will be available to the States and the Northern Territory for a range of purposes including:

- water resource development or management activities/projects for agricultural, urban or industrial purposes

- floodplain management
- collaborative information programs
- salinity reduction and land drainage
- State-wide and broad regional water plans, and
- public education.

Funds approved in 1983-84 under the Community Employment Program will continue to be available in 1984-85 for water supply improvement projects in country towns.

Research and continuing assessment of water resources

Australian Water Resources Council (AWRC)

The Australian Water Resources Council was established in 1963 by joint action of the Commonwealth and State Governments. The Council consists of the Commonwealth and State Ministers who have primary responsibility for water resources; it is chaired by the Commonwealth Minister for Resources and Energy.

The Council provides a forum for the exchange of views on water-related issues, and has been instrumental in promoting co-operation and collaboration on matters of mutual interest to its members. Its terms of reference include the promotion of programs to assess Australia's water resources, the encouragement of education and training in hydrology, the co-ordination and dissemination of information, the promotion of water research and development of liaison with overseas and international organisations in the field of water resources.

The Council is supported by a Standing Committee of permanent heads of relevant State and Commonwealth departments and authorities, and by six permanent technical committees and various fixed-term working groups and panels. Permanent technical committees have been established to tackle ongoing issues in groundwater, surface water, water quality management, catchment management, planning and management, and research and development, while working groups have examined such issues as research needs, education and training and the problem of aquatic weeds.

The AWRC's functions and advisory committee systems are under review to ensure that all important current and emerging issues are fully addressed in this important forum, with a view to developing compatible approaches to matters of mutual and national concern.

See Year Book No. 61, page 869 for further details on the work of the AWRC.

Water resources assessment

In 1964 in response to a perceived lack of water resouces data in all States the Commonwealth Government instituted through the AWRC the National Water Resources Assessment Program. The original aim was to expand the stream gauging network in Australia and increase the level of groundwater knowledge. In 1976 the collection of water quality data was added to the program. The program has been successful in filling many of the data gaps which existed prior to 1964 and in providing data and information for water resources planning, construction projects and in the development of the understanding of the nature and function of Australia's water resources. Discussions are currently underway with the States on the implementation of a new program of water resources data collection and information dissemination.

Water resources research

The Department of Resources and Energy is primarily responsible for the Commonwealth interests in water resource matters, including research policy and co-ordination at the Commonwealth level. The Department does not perform research, but has provided funds for and has administered a water research program on behalf of the AWRC. $500,000 has been made available in 1984-85 to support projects of 2-3 years duration in fields such as aquatic biology, effluent treatment, drinking water quality, evapo-transpiration, salinity and soil-water interaction. The AWRC is the major mechanism for the development of Commonwealth/State collaborative water programs.

Water research is undertaken at the Commonwealth level by the Commonwealth Scientific and Industrial Research Organization (CSIRO), the Bureau of Meteorology, the Australian Atomic Energy Commission (AAEC) and the Bureau of Mineral Resources, Geology and Geophysics (BMR). The water research programs of these major national agencies are coordinated through a Water Research Liaison Committee which advises the Ministers of Resources and Energy and of Science and Technology on water research in Commonwealth Government agencies.

At the State level, water agencies have extensive laboratory facilities for water quality testing. However, most water related research is undertaken in research centres associated with agriculture, fisheries, forestry and environmental authorities. At the regional level, some of the larger authorities providing water supply and sewerage services undertake applied research on a very limited scale.

A significant proportion of Australian water research is undertaken by researchers in tertiary education institutions with the aid of either internal funding or grants from outside bodies, such as the AWRC or the Australian Research Grants Committee. Water research is carried out within a range of disciplines, including the biological and social sciences and engineering.

A review of water research was undertaken by an Interim Council established in November 1983 to examine the need for and possible role of an Institute of Freshwater Studies. The Interim Council recommended the establishment of an independent advisory council, supported by a National Office of Water Research within the Department of Resources and Energy, to advise the Government of national water research priorities and an associated program of research. The Interim Council also recommended a substantial increase in funds for water research. The Commonwealth Government has yet to respond to the report.

CSIRO is the major national body undertaking water research. The principal water research groups in CSIRO are:

- *Division of Groundwater Research*. The Division's work seeks to understand the consequences of heterogeneity in soil and aquifer properties on a variety of scales and how they impinge on the movement of water and solutes into soils and aquifers. The Division develops and applies physical and geochemical techniques and instruments to investigate these questions.
- *Centre for Irrigation Research*. Programs at the Centre deal with the management of aquatic weeds and related aspects of water quality with special emphasis on turbidity in the Murrumbidgee system, the low-cost treatment of wastewaters utilising aquatic weeds, and the development of on-farm measures to ensure the most effective and efficient use of irrigation water.
- *Division of Water and Land Resources*. This Division's water research is carried out principally within its Catchment Hydrology Program. The aims of this program are to provide a basis for the management of catchments by developing a quantitative understanding of climate-water-land interactions at varying scales and to undertake analysis of the critical processes in catchment hydrology. It also aims to develop an understanding of hydrologic processes at the mesoscale to assist practising hydrologists with appropriate design techniques and to identify and quantify the causes of salinisation, the influence of vegetation on water quality, and, through sediment analysis, the nature and extent of long-term erosion over significant areas. Finally, the Program seeks to develop and apply remote sensing and modelling techniques to mesoscale water balance estimation.
- *Division of Chemical and Wood Technology*. Most water research undertaken in this Division is concentrated on the development of wastewater purification techniques and seeks to extend Australia's water resources through purification and recycling technology and to develop cheaper and more effective processes for the treatment of sewage and industrial effluents.
- *Other Divisions*. Research related to the various uses of water is undertaken by a number of other CSIRO Divisions: the Division of Soils, the Division of Environmental Mechanics, and the Division of Entomology, for example.

International aspects

International water organisations

Australia liaises with international bodies and United Nations agencies concerned with water resources and participates in their activities in various ways.

Economic and Social Commission for Asia and the Pacific (ESCAP). This United Nations Commission, through its Committee on Natural Resources, reports on water policy issues in addition to other activities. By participation in this conference and in seminars arranged on selected topics, Australia contributes to, and benefits from, identification of and discussions on the main problems of water resources management in a densely populated, developing region. Australia is also an active participant in ESCAP's water information exchange system.

Organisation for Economic Co-operation and Development (OECD). Australia's membership of the OECD since 1970 has involved participation in the work of the Environment Committee's Water Management Group and its Group of Economic Experts which investigates problems which are the subject of international concern, and the development of strategies—economic, legal and technical—which might resolve them.

United Nations Educational, Scientific and Cultural Organization (UNESCO). Australia has contributed to the international program designed to advance the science and practice of hydrology, International Hydrology Program (IHP), through an Australian UNESCO Committee for the IHP. Australia has been elected to the Intergovernmental Council for IHP.

World Meteorological Organization (WMO). Through its Commission for Hydrology, WMO is the specialised UN agency dealing with operational hydrology—the measurement of basic hydrological elements, water resources assessment and hydrological forecasting. WMO has an Operational Hydrology Program (OHP) which is co-ordinated with and complemented by UNESCO's IHP. Within the OHP is the Hydrological Operational Multipurpose Subprogram (HOMS) involving the organised transfer of hydrological technology among members. Australia is a contributor to HOMS and has established a HOMS National Reference Centre within the Secretariat of the Australian Water Resources Council (AWRC). In Australia, hydrological and meteorological activities relative to water resources are co-ordinated by the Secretary of the AWRC as hydrological advisor to the Permanent Representative of WMO in Australia, the Director of Meteorology.

United Nations Environment Program (UNEP). Australia participates in a world registry of major rivers covering discharge and pollutants and of clean rivers so defined and in the development of methodology for analysis and planning of water resources management.

World Health Organisation (WHO). Australia is participating in the water quality monitoring component of the WHO Global Environmental Monitoring System (GEMS) which provides a consistent global overview of changes in water quality.

Louisiana World Exposition. Australia participated in an international exposition with the theme "The World of Rivers: Fresh Water as a Source of Life" held in New Orleans, U.S.A. from May to November 1984.

National and interstate agreements

In the section on *Water Management* above, reference was made to the responsibilities of government on the national, state and local authority levels. In this section, some additional details are provided on their roles in the management of water resources.

The Murray-Darling Drainage Division's surface water resources are the most highly developed in Australia, with 85 per cent of the possible exploitable yield currently committed for use.

River Murray Waters Agreement

The *River Murray Waters Act 1915* ratified an Agreement between the Commonwealth and the States of New South Wales, Victoria and South Australia. Year Books prior to No. 39 contain a number of summaries of the historical events leading to the Agreement of 1914 which provided for a minimum quantity of water to pass to South Australia. Further details on the River Murray Waters Agreement and subsequent amendments may be found in Year Book No. 61, pages 870–2.

The River Murray Commission, established in 1917 to give effect to the Agreement, is responsible for the management of the flow of water in the River Murray, the construction, maintenance and operation of storages and other regulatory works to make water available for irrigation, navigation and urban purposes; and for the allocation of water between the States of New South Wales, Victoria and South Australia. It also has responsibility for management of the catchment above Hume Dam and for the management of the flow of water in the Darling River below Merindee Lakes.

Dartmouth and Hume Reservoirs together with Lake Victoria and the Menindee Lakes storages, are the key storages operated by the River Murray Commission to regulate the River Murray system. A series of weirs along the river provide for irrigation diversions and pumping facilities by the three States. The major diversion weir is at Yarrawonga. All of the weirs except Yarrawonga have locks to enable navigation of the river to be maintained.

A new River Murray Waters Agreement, which was approved by legislation and ratified on 1 February 1984, broadens the role of the River Murray Commission to allow for more direct and independent action in the management of the Murray. The new Agreement enables the Commission to consider water quality, recreation, flood mitigation and environmental issues in relation to the management of the river system, in addition to its traditional role.

In relation to water quality, the Commission is now authorised to:

- initiate proposals for the protection or improvement of River Murray water quality
- co-ordinate or carry out investigations and studies into the feasibility of works or measures for the improved conservation and regulation of the waters of the River Murray, to protect or improve its quality
- measure and monitor water quality of the waters of the Murray and its tributaries
- formulate water quality objectives and recommend water quality standards for adoption by the Contracting Governments, and
- make recommendations to Contracting Governments or any authority, agency or tribunal on any matter which may affect the quality or quantity of the River Murray waters.

A particular feature of the new Agreement is that the State Contracting Governments are required to advise the Commission of any proposal within their States which could significantly affect the quality and quantity of the River Murray.

The new Agreement enables the Commission to clearly define the principles of water sharing laid down in the original Agreement; to enable a water accounting system to be introduced and to carry out river protection works and remedial works (including salinity mitigation works) where the need arises. The Commission can also recommend future amendments to the new Agreement.

New South Wales—Queensland Border Rivers Agreement

This agreement came into effect in July 1947 and provided for the construction of a dam and several weirs on the rivers which constitute part of the boundary between the two States. This Act was amended in November 1968 to provide for storages on Pike Creek (Queensland) and the Mole River (New South Wales) and construction of further weirs on the Border Rivers and regulators on effluents of the Border Rivers and works for improvement of flow in streams which intersect the Queensland-New South Wales border west of Mungindi.

Glenlyon Dam on Pike Creek with a storage capacity of 254 million cubic metres was completed in 1976 and seven regulators on the Balonne-Culgoa River System have been constructed.

The Dumaresq-Barwon Border Rivers Commission, constituted of representatives of both States, administers the Agreement and the sharing of water.

Snowy Mountains Hydro-electric Scheme

The Snowy Mountains Scheme is a dual purpose hydro-electric and irrigation complex located in south-eastern Australia and on its completion was one of the largest engineering works of its type in the world. It impounds the south-flowing waters of the Snowy River and its tributary, the Eucumbene, at high elevations and diverts them inland to the Murray and Murrumbidgee rivers through two tunnel systems driven through the Snowy Mountains. The Scheme also involves the regulation and utilisation of the headwaters of the Murrumbidgee, Tumut, Tooma and Geehi rivers.

The Scheme was designed and constructed by the Snowy Mountains Hydro-electric Authority, a statutory body established by the Commonwealth Government in 1949, and was substantially completed by 1974. Its installed generating capacity is 3740 MW and its average annual electricity output is over 5000 GWh. An average of 23×10^8 cubic metres of water per year has become available for irrigation in the Murray and Murrumbidgee rivers as a result of the Scheme.

Details of the diversions and associated power works, together with details of construction, are given in Year Book No. 62, pages 444-448.

The Snowy Mountains Council, constituted of representatives of the Governments of the Commonwealth, New South Wales and Victoria and the Snowy Mountains Hydro-electric Authority, was established on 2 January 1959. Its main functions are to direct and control the operation and maintenance of the permanent works of the Snowy Mountains Scheme in particular the control of water and the allocation of loads to generating stations.

States and Territories

The foregoing text deals with water conservation and irrigation in Australia generally and with international, national and interstate aspects. The following survey covers the local pattern of water resources and the steps taken by the State Governments to bring about their development. In the various States, water policies tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria, almost every form of water scheme is in operation. In New South Wales the management of irrigation water supplies is an area of major emphasis, with approximately two thirds of a million hectares under irrigation. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock and the development of small irrigation schemes in sub-humid and humid areas, principally to stabilise production of such crops as tobacco, sugar, cotton and pastures. Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with water supplies for population centres and mining and pastoral industries.

New South Wales

Administration

The Water Resources Commission, New South Wales, is a Statutory Authority formed in 1976 by the reconstitution of the Water Conservation and Irrigation Commission. Administrative authority is vested in the Chief Commissioner, who is assisted by two full-time Commissioners and two part-time Commissioners. All five are appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance for farm water supply schemes, and river improvement works. An important function of the Commission is planning for the co-ordinated development and allocation of the State's water resources. This entails the assessment and projection of demand for all purposes and also involves the quantitative and qualitative assessment of the available resources. Another important planning function relates to flood plain management. The search for, and surveillance of, groundwater for water supply is another important planning activity.

Under the *Water Act, 1912* (as amended) the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage and prevention of inundation.

For particulars of the New South Wales–Queensland Border Rivers Agreement ratified by Acts of both States in 1947, *see* page 325.

Schemes summarised

The bulk of irrigated land is along the Murray and its tributary, the Murrumbidgee, regulated by the Hume, Blowering and Burrinjuck dams. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam and Glennies Creek Dam in the Hunter Valley, by Keepit Dam on the Namoi River, by Burrendong Dam on the Macquarie River, by the Menindee Lakes Storage on the Darling River, by Copeton Dam on the Gwydir River and Chaffey Dam on the Peel River. There are a number of other smaller storages on other rivers in the State. Weirs and dams have been provided for town supplies, etc. in many places. In addition substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Area. Others are: Coomealla, Curlwaa, Hay, Tullakool, Buronga, Mallee Cliffs and Coleambally.

A detailed description of the Murrumbidgee Irrigation Area is contained in Year Book No. 61, pages 875–7. The Water Resources Commission controls land transactions and water supplies for the MIA, but has no jurisdiction over land transactions in neighbouring irrigation districts (although it is responsible for the operation and maintenance of the water supply in these areas). The other irrigation areas follow the same administrative pattern as the MIA.

Irrigation districts are set up under the *Water Act, 1912* (as amended) for (*a*) domestic and stock water supply and (*b*) irrigation. The essential difference between an 'Area' and a 'District' is that, in the case of the former, all the land to be included in the Area is acquired by the Crown and then sub-divided into separate holdings. Within the District, however, existing ownership of land is not disturbed other than to acquire land required for water distribution works. Since the completion of the Hume Dam, several such districts have been established along the Murray to use the New South Wales share of the stored water. The schemes are based on 'extensive' irrigation, that is, water is allocated to holdings on the basis that only a portion of each holding will be irrigated, but additional water, when available, may be obtained by landholders.

The *Water Act, 1912* (as amended) provides for Trust Districts to be constituted for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilise necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. There are seven of these trusts.

The Lowbidgee Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district is Medgun, near Moree in the north-west.

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, NEW SOUTH WALES 1983–84p
(Hectares)

	Method				
Crops and Pastures	*Sprays*	*Furrows and/or Flood*	*Trickle (a)*	*Other and multiple methods*	*Total*
Pure Lucerne	24,218	13,056	n.a.	1,084	38,358
Other pastures (sown or native)	42,647	197,635	n.a.	10,655	250,937
Wheat	9,318	72,020	n.a.	2,284	83,622
Other cereals for all purposes	20,049	121,714	n.a.	5,863	147,626
Vegetables for human consumption	8,979	3,475	187	660	13,301
Citrus fruit	3,786	3,908	1,362	207	9,263
Other fruit	1,340	1,090	4,366	301	7,097
Grapevines	1,359	5,281	1,161	119	7,920
All other crops	4,547	85,727	126	1,208	91,608
Total	**116,243**	**503,906**	**7,202**	**22,381**	**649,732**

(*a*) Includes micro-sprays.

SOURCES OF IRRIGATION WATER, NEW SOUTH WALES 1983–84p

Source of supply	*Area irrigated*	*Percentage of total area irrigated*
	(hectares)	%
Surface water		
from State irrigation schemes	372,776	57
from other schemes (including private group schemes)—		
from rivers, creeks, lakes, etc. (*a*)	217,777	34
from farm dams	20,436	3
Total surface water	*610,988*	*94*
Underground water supply (e.g. bore, spear, well) (*b*)	37,810	6
Town or country reticulated water supply	934	—
Total all water sources	**649,732**	**100**

(*a*) Includes regulated and unregulated streams. (*b*) Naturally or artificially replenished.

Future program

The program of development in hand includes the provision of additional dams, weirs, flood mitigation and drainage schemes and river management works.

Construction work continued on Windamere Dam on the Cudgegong River.

The construction of Split Rock Dam is under way on the Manilla River north of Manilla.

The construction of surface and sub-surface drainage schemes continued in the Murray Valley to alleviate rising groundwater and salinity problems.

Work has started on the enlargement of Glenbawn Dam on the Hunter River.

Investigations are continually being carried out to assess demand and identify worthwhile water conservation projects which could be implemented as funds become available.

A comprehensive State Water Plan is being prepared. The Plan is intended to provide a broad framework for the efficient management and orderly development of the State's water and related land resources.

For more detailed information on Water Resources in New South Wales see the chapter entitled *Water Resources* in the latest edition of the New South Wales Year Book.

Victoria

Administration

Victorian Governments have been active in the development of country water supplies since the 1860's when major works to supply the Bendigo goldfields were undertaken. Local trusts to construct and operate waterworks under Government supervision were provided for in the *Water Conservation Act 1881*. Development under the trust system was greatly stimulated by the *Irrigation Act 1886*, which provided for the construction of national headworks by the State, and vested in the Crown the right to the use and control of all surface waters. By 1900 there were 33 irrigation trusts and 18 other rural water supply trusts, but the system of local control was then breaking down under financial difficulties.

The *Water Act 1905* established the State Rivers and Water Supply Commission to take over Irrigation Trust districts (except the still-existing First Mildura Irrigation Trust) and to exercise the State's functions in the further control and development of surface waters outside the metropolis.

The *Water (Central Management and Restructuring) Act 1984*, abolished the State Rivers and Water Supply Commission and the Ministry of Water Resources and established the Rural Water Commission of Victoria and the Department of Water Resources. The Rural Water Commission was established to provide efficient and effective water services for the irrigation sector and other uses. The objective of the Department of Water Resources is to provide advice to the Minister on all matters relevant to the activities, or functions, of the Department to ensure that the water resources of the State are managed in ways which are most beneficial to the people of Victoria.

Works summarised

The Department of Water Resource's storages are augmented by Victoria's half share in River Murray Commission storages. Most of the water is for irrigation. However, about one quarter of irrigation production is from lands irrigated by 'private diverters', i.e., irrigators who are authorised to take water from streams, lakes, etc., but who do not come within the boundaries of an irrigation district.

Rural water supply systems

The principal irrigation systems in Victoria are:

- *Goulburn–Campaspe–Loddon*. The main storage is Lake Eildon with a capacity of 3,392 million cubic metres. The main products in these systems are dairy products, fruit, wool and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.
- *Murray River System*. The Murray Valley Irrigation Area and the Torrumbarry Irrigation System are irrigated by water diverted at the Yarrawonga and Torrumbarry Weirs respectively. These areas are devoted mainly to dairying, fat lambs and canning fruit (Murray Valley) and dairying, fat lambs, vineyards, orchards and market gardens (Swan Hill). Downstream from Swan Hill, the First Mildura Irrigation Trust and four Commission Districts are supplied by pumping and produce mainly dried vine fruit, citrus fruits, and table and wine grapes.
- *Southern Systems*. The Maffra–Sale–Central Gippsland district, supplied from the Macalister River and regulated by Lake Glenmaggie, is devoted mainly to dairying.
- *Werribee and Bacchus Marsh*. These districts produce fresh fruit, vegetables and dairy products mainly for the local domestic market. Irrigation is supplied from the Werribee River system which is regulated by three main storages, viz. Pykes Creek, Melton Reservoir and Lake Merrimu.
- *Wimmera–Mallee Domestic and Stock Supply System*. Storages in the Grampian Ranges ensure farm water supplies over the riverless pastoral and cereal lands to the Murray. Without this supply, occupation of the region would be extremely hazardous. There are small areas of irrigation supplied from this system near Horsham and Murtoa.

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, VICTORIA 1983–84p
(Hectares)

Crops and Pastures	Method				
	Sprays	Furrows and/or Flood	Trickle (a)	Other and multiple methods	Total
Pure Lucerne	4,451	7,882	n.a.	193	12,526
Other pastures (sown or native)	36,282	409,016	n.a.	11,977	457,275
Cereals for all purposes	4,804	24,532	n.a.	1,533	30,869
Tobacco	2,077	53	n.a.	160	2,290
Vegetables for human consumption	13,010	3,739	145	2,216	19,110
Fruit	4,944	4,616	3,453	614	13,627
Grapevines	3,733	10,975	669	198	15,575
All other crops	1,980	3,108	79	217	5,384
Total	**71,281**	**463,921**	**4,346**	**17,108**	**556,656**

(a) Includes micro-sprays.

SOURCES OF IRRIGATION WATER, VICTORIA 1983–84p

Source of supply	Area irrigated	Percentage of total area irrigated
	(hectares)	%
Surface water		
from State irrigation schemes	438,913	79
from other schemes (including private group schemes)—		
from rivers, creeks, lakes, etc. (a)	62,148	11
from farm dams	30,128	5
Total surface water	*531,189*	*95*
Underground water supply (e.g. bore, spear, well) (b)	20,416	4
Town or country reticulated water supply	5,051	1
Total all water sources	**556,656**	**100**

(a) Includes regulated and unregulated streams. (b) Naturally or artificially replenished.

Future programs

The Victorian Water Industry's program of capital works continues to emphasise an increasing proportion of expenditure on urban water services, including waste water treatment and disposal, water quality and works to protect the water environment from the adverse effects of land and water use.

The program also reflects national policy in budgetary constraints on works programs in the public sector, and an increasing requirement for justifiable economic viability.

Major provisions in the program include:

- the continuation of a construction program of major water conservation dams for urban, industrial and irrigation supply
- construction of further within-system storage in the Bendigo area and development of proposals to augment supply to Geelong
- the construction of large trunk pipelines to augment supply to and to enhance the operating capabilities of the Mornington Peninsula water supply system
- further development of country water supply and sewerage facilities
- continuation of works to divert salt from drainage flows in the Kerang Region to evaporative areas, and
- the continuation of surface drainage programs in the Northern Irrigation Districts.

For more detailed information on Water Resources in Victoria see the chapter entitled *Water Resources* in the latest edition of the Victoria Year Book.

Queensland

Administration

The important primary industries of Queensland are subject to relatively frequent and serious losses by either drought or extensive flooding.

The right to the use and flow and to the control of water in watercourses, lakes, springs and artesian wells is vested in the Crown, and the Commissioner of Water Resources is authorised to take measures to conserve water and provide for its more equal distribution and beneficial use. Under the *Water Resources Administration Act 1978–1981*, he is required to (*a*) prepare a complete description of the natural water resources of the State, both surface and underground, (*b*) make and keep a record of all the natural water resources of the State, both surface and underground, (*c*) evaluate the present and future water requirements in the State, (*d*) plan the development of the water of the State, (*e*) take such steps as he thinks fit to protect the water resources of the State from anything detrimental to their quality or that results in or is likely to result in a diminution in their quantity, (*f*) investigate and survey any natural water resource, surface or underground, (*g*) co-ordinate the investigation, evaluation and development of plans for control of flood waters and mitigation of flood damage, (*h*) construct works for the conservation, replenishment, utilisation or distribution of the waters of the State, (*i*) manage water conservation, water supply and irrigation undertakings established under any Act of the State. As required under the *Water Act 1926–1983*, and the *Irrigation Act 1922–1983*, rights to underground and surface water are allocated and their use is controlled by a system of licensing of all artesian bores and sub-artesian bores in areas proclaimed by the Governor in Council and all conservation and use (other than for stock and domestic supplies) of flow in watercourses.

The Commissioner is required to prepare a co-ordinated program of work for the conservation, utilisation and distribution of water resources, and to make recommendations to the Government regarding the carrying out of works in this program. He is principally responsible for water conservation and supply works for rural purposes, including irrigation, stock and domestic supply. In planning such storages, economies to all users are accrued by providing, where possible, for dual or multi-purpose use of works for irrigation, rural, urban and industrial uses including power generation and mining purposes.

Summary of schemes

Unlike other States, the greater part of the area irrigated in Queensland is by individual private pumping plants taking supply from streams or underground sources, spread widely through the State, rather than in constituted irrigation areas where supply is provided by channel systems delivering water to farms. Because of the predominance of irrigation by private diversion pumping, most of the storages are used to release water downstream to maintain supplies for such purposes.

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, QUEENSLAND 1983–84p
(Hectares)

	Method				
Crops and Pastures	*Sprays*	*Furrows and/or Flood*	*Trickle (a)*	*Other and multiple methods*	*Total*
Pure lucerne	12,453	180	n.a.	828	13,461
Other pastures (sown or native)	16,318	3,046	n.a.	2,927	22,291
Grain sorghum	3,848	5,923	n.a.	920	10,691
Other cereals (including rice)	10,969	9,842	n.a.	1,451	22,262
Cotton	959	24,195	486	267	25,907
Soy beans	6,529	7,529	n.a.	1,010	15,068
Sugar cane	50,722	43,671	467	9,353	104,213
Vegetables for human consumption	14,820	3,103	948	1,344	20,215
Fruit (including grapevines)	3,385	210	4,050	812	8,457
All other crops	6,426	1,916	244	796	9,382
Total	**126,429**	**99,615**	**6,195**	**19,708**	**251,947**

(*a*) Includes micro-sprays.

SOURCES OF IRRIGATION WATER, QUEENSLAND 1983–84p

Source of supply	*Area irrigated*	*Percentage of total area irrigated*
	(hectares)	%
Surface water		
from State irrigation schemes	54,948	22
from other schemes (including private group schemes)—		
from rivers, creeks, lakes, etc. (*a*)	43,629	17
from farm dams	39,028	15
Total surface water	*137,605*	*55*
Underground water supply (e.g. bore, spear, well) (*b*)	113,338	45
Town or country reticulated water supply	1,003	..
Total all water sources	**251,947**	**100**

(*a*) Includes regulated and unregulated streams. (*b*) Naturally or artificially replenished.

Irrigation areas

About 25 per cent of the area under irrigation annually, i.e. some 75,230 hectares, is concentrated in seven Irrigation Areas constituted under the *Irrigation Act 1922–1983*, where the supply is generally reticulated by channel systems (by means of gravity or by pumping) from the storage. In addition, some supply is also provided from streams regulated by the storage. Further details are shown on page 883 of Year Book No. 61.

Irrigation areas	*Comments*
Dawson Valley	Around Theodore on Dawson River; cotton, graincrops and urban usage in Theodore and Moura.
Burdekin River	Complex system of conservation, irrigation, industrial and other uses; sugar cane, rice, seed and small crops; artificial recharging of underground water supplies from unregulated flows (Burdekin River)
Mareeba-Dimbulah	Hinterland of Cairns; tobacco, rice, peanuts and urban/hydro-electric uses; Tinaroo Falls Dam.
St George	Balonne River; cotton, soya beans and cereals, and urban uses; Beardmore Dam.
Emerald	Joint Federal-State undertaking based on State's largest storage—Fairbairn Dam; industrial and urban use, irrigation of cotton, soya beans and cereals.
Bundaberg	Joint Federal-State undertaking; sugar and small crops and urban supplies for Bundaberg and adjacent shires; Fred Haigh Dam.
Eton	Hinterland of Mackay; sugar cane; Kinchant Dam.

A number of other schemes have been established under the *Water Act 1926–1983*, where water from storage is released downstream to maintain adequate supplies for pumping under licence to adjacent lands. Details on these and others currently under construction are in Year Book No. 61, pages 883–4.

Rural, stock and domestic supplies

Improvements to stock and domestic water supplies are assisted by Rural Water Supply Schemes and Bore Water Supply Areas (constituted under the Water Act). Investigation, design and administration of these schemes are carried out by the Queensland Water Resources Commission.

Underground water supplies

The availability of underground water, particularly the Great Artesian Basin, has played a major part in the development of the pastoral industry in Queensland. Underground water is also used extensively for irrigation on individual farms, particularly along the coastal fringe, and for domestic purposes. Over half the area irrigated in Queensland receives its supplies from underground sources. In accordance with the requirements of the *Water Resources Administration Act 1978–1984* the investigation of availability of underground water is being pursued by geological mapping, investigation drilling and hydro-geological assessment. The most important areas where water from this source is used for irrigation are the Burdekin Delta, Condamine Valley, Bundaberg, Lockyer Valley, Callide Valley and Pioneer Valley. The table on page 331 of this chapter provides the quantity and purpose of groundwater usage in these areas.

For more detailed information on Water Resources in Queensland see the chapter entitled *Land Settlement* in the latest edition of the Queensland Year Book.

South Australia

Administration

All major water resources and most public water supply schemes in South Australia are administered by the Engineering and Water Supply Department under the various statutes mentioned below.

- The *Waterworks Act, 1932–1981*, which empowers the Minister of Water Resources to impound or divert the water from any lake, watercourse or underground source for the purpose of establishing and maintaining public water supply schemes to serve proclaimed water districts throughout the State.
- The *Water Conservation Act, 1936–1975*, provides for the control of small reservoirs, bores, tanks, etc. established in remote areas as emergency water supplies or to assist local development.
- The *River Murray Waters Act, 1983*, which ratifies the River Murray Waters Agreement, and under which the Engineering and Water Supply Department operates and maintains Lake Victoria storage, nine weirs and locks downstream of Wentworth, N.S.W., and barrages at the river mouth.
- The *Water Resources Act, 1976–1981*, which came into force from 1 July, 1976 and superseded the *Control of Waters Act, 1919* and the *Underground Waters Preservation Act, 1969*, represents the culmination of the development of the Government's water resources policy involving the management of all aspects of water—surface and underground, quality and quantity. The Act provides for the control of diversions of surface waters from Proclaimed Watercourses and for the withdrawal of underground waters from Proclaimed Regions. Currently, the River Murray, Little Para River and Bolivar Effluent Channel are Proclaimed Watercourses, the Proclaimed Regions being the Northern Adelaide Plains, Padthaway and Angas-Bremer Irrigation Areas. The legislation provides for control over the construction or modification of most categories of wells over the whole State and for the abatement of pollution of all waters. It establishes a South Australian Water Resources Council and Regional Advisory Committees as vehicles for public participation in the water resources management process. Currently, Regional Committees operate in respect of the River Murray; the Northern Adelaide Plains, Little Para River and Bolivar Effluent Channel; Padthaway; the North Para River; the Arid Areas and the Angas-Bremer Irrigation Area. In addition, the Act provides for a Water Resources Appeal Tribunal to give individuals the opportunity to appeal against decisions of the Minister pursuant to the Act.

Summary of schemes

South Australian irrigation commenced with an agreement involving the Chaffey brothers in 1887 whereby an area was made available for the establishment of certain irrigation works at Renmark. From this start, government, co-operative and private irrigation areas totalling more than 42,000 hectares have been developed in the South Australian section of the Murray Valley. The authority controlling River Murray irrigation is the Engineering and Water Supply Department which operates under policies determined by the Minister of Water Resources on advice of the S.A. Water Resources Council. The principal high land crops comprise citrus and stone fruits, and vines. The reclaimed swamps along the lower section of the Murray are used almost exclusively for pasture and fodder crops. Vegetable crops of various kinds are important in both types of irrigated lands.

Except for quantities held in various lock pools and natural lakes, no water from the Murray is stored within South Australia for irrigation purposes. Usage of the River is therefore planned on the basis of the minimum monthly flows to which South Australia is entitled under the River Murray Waters Agreement. This factor, plus the need to reserve water for city, town and rural water supply systems, has resulted in the expansion of irrigation from the River being rigidly controlled by the Government. In addition to irrigation from the River Murray there are considerable areas irrigated from underground sources by individual landholders in South Australia. The most important of these areas are the North Adelaide Plains (market gardens) and the Padthaway district of the south-eastern region (pastures, fodder, seed crops and vines).

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, SOUTH AUSTRALIA 1983–84p
(Hectares)

	Method				
Crops and Pastures	*Sprays*	*Furrows and/or Flood*	*Trickle(a)*	*Other and multiple methods*	*Total*
Pure Lucerne	10,976	4,324	n.a.	469	15,769
Other Lucerne-based pastures	2,689	1,126	n.a.	117	3,932
Other pastures (sown or native)	11,651	14,228	n.a.	999	26,878
Cereals for all purposes	1,591	807	n.a.	109	2,507
Vegetables for human consumption	5,485	336	129	530	6,480
Fruit	7,156	1,323	3,103	818	12,400
Grapevines	5,950	6,888	3,930	1,149	17,917
All other crops	1,179	877	32	55	2,143
Total	**46,677**	**29,909**	**7,194**	**4,246**	**88,026**

(*a*) Includes micro-sprays.

SOURCES OF IRRIGATION WATER, SOUTH AUSTRALIA 1983–84p

Source of supply	*Area irrigated*	*Percentage of total area irrigated*
	(hectares)	%
Surface water		
from State irrigation schemes	17,233	20
from other schemes (including private group schemes)—		
from rivers, creeks, lakes, etc. (*a*)	19,672	22
from farm dams	3,710	4
Total surface water	*40,615*	*46*
Underground water supply (e.g., bore, spear, well) (*b*)	44,625	51
Town or country reticulated water supply	2,786	3
Total all water sources	**88,026**	**100**

(*a*) Includes regulated and unregulated streams. (*b*) Naturally or artificially replenished.

Adelaide Metropolitan Water Supply

In 1983–84, River Murray pipelines supplied 37 per cent of the total intake to the Metropolitan Adelaide Water Supply System. This compared with 1982–83, a year of severe drought, when 85 per cent (the highest ever recorded) was supplied from the River Murray. The principal sources of supply for the nine storages in the Mt Lofty Ranges are the Rivers Onkaparinga, Torrens, South Para, Myponga and Little Para. For details on Adelaide Metropolitan Water Supply, see "Metropolitan Adelaide Water Resources Study", Engineering and Water Supply Department, June 1978.

Country reticulation supplies

A number of reservoirs in the Barossa Ranges and other local sources are augmented by the Morgan-Whyalla, Swan Reach-Stockwell and Tailem Bend-Keith pipelines which provide River Murray water to extensive country areas. A network of branch mains provides the means of conveying water to numerous towns and large areas of farmlands.

Surface and underground resources have been developed to supply most country centres not covered by the larger schemes. Victor Harbor and adjoining south coast resort centres are supplied from reservoirs and the River Murray. A reservoir on Kangaroo Island supplies Kingscote and adjacent farmlands. Underground resources of the lower south-east supply all towns in the region, the city of Mount Gambier and nearby farmlands being reticulated from the well-known Blue Lake. At the far northern opal mining town of Coober Pedy a reverse osmosis desalination plant provides a potable supply from brackish groundwater. Other centres in the far north obtain supplies from the Great Artesian Basin. For details on underground water resources in South Australia *see "Underground Water Resources of South Australia", Bulletin No. 48,* Department of Mines and Energy, *Geological Survey of South Australia, 1978.*

South-eastern drainage

A section of the South-East Coast Drainage Division extends into South Australia but has no co-ordinated drainage pattern to form a significant surface water resource. However, high rainfall in the area has led to the natural development of underground resources. Surplus water is not easily disposed of in the valleys and low range terrain, so drainage systems have been undertaken by the Government in co-operation with landholders. For further details *see* "Environmental Impact Study on the effects of Drainage in the South East of South Australia", South Eastern Drainage Board, June 1980.

Murray River Irrigation Areas

Where irrigation water in excess of plant requirements has been applied, perched water tables develop. Rising to the level of tree roots, these cause the death of orchards from salination and water-logging. Most orchards and vineyards are now drained by plastic and tile drainage systems, thus restoring their health and productivity. Disposal of drainage water is achieved by pumping to basins on river flats where it is evaporated, or by discharge into the river when it is in flood—apart from those areas connected to the Noora Drainage Disposal Scheme. This scheme is the central feature in a $25 million package of six salinity control measures commenced in 1979 following investigations into alternative disposal schemes. The package includes engineering works, improved irrigation practices and river regulation to reduce salinity to acceptable levels.

The Noora Scheme allows drainage water formerly held in river flat basins to be pumped to a large evaporation basin located well out of the river valley at Noora, approximately 20 km east of Loxton. The first stage of the scheme, pumping from Berri, was commissioned in September 1982, the second (Dishers Creek) stage in February 1983, and the final (Renmark) stage in July 1984.

For more detailed information on Water Resources in South Australia see the chapter entitled *Physical Development* in the latest edition of the South Australian Year Book.

Western Australia

Administration

The Minister for Water Resources administers the departmental irrigation schemes under the *Rights in Water and Irrigation Act, 1914–1978*. He is advised by an Irrigation Commission representing the local irrigationists and government, technical and financial branches. He also administers, under the *Country Areas Water Supply Act, 1947–1979*, the water supplies to certain country towns and reticulated farmland. He also controls minor non-revenue producing supplies to stock routes and a few mines and agricultural areas with their associated communities. A small number of town supplies are administered by local boards under the *Water Boards Act, 1904–1979*, which provides a large degree of autonomy with ultimate Ministerial control.

Irrigation

Irrigation schemes have been established by the Government on the coastal plain south of Perth in the Waroona, Harvey and Collie River and Preston Valley Irrigation Districts between Waroona and Donnybrook, the water being channelled from dams in the adjacent Darling Range. The success of dairying and stock raising and, to a lesser extent, vegetable growing, which have replaced citrus growing, has led to a gradual but substantial extension of irrigation areas in the south-west.

Irrigation areas at Carnarvon and on the Ord and Fitzroy Rivers in the Timor Sea Drainage Division are established in the north of the State.

Since the mid 1930s, a centre of tropical agriculture has been developed at Carnarvon, near the mouth of the Gascoyne River. Initially, the principal source of irrigation water for plantations was private pumping from the sands of the Gascoyne River. Overpumping by the growers however, resulted in salt intrusion into the fresh water aquifer. Government controls were introduced and a major groundwater supply scheme upstream of the irrigation area has since been commissioned and provides 171 properties with approximately two-thirds of the irrigation water. The area specialises in growing bananas together with out of season vegetables for the Perth market. A tropical research station is maintained at Carnarvon by the Department of Agriculture.

The Ord River Irrigation Project in the Kimberley Division provides for the eventual development of an irrigation area of some 70,000 hectares of land, one third of which is in the Northern Territory. The first stage, in which water was supplied from the Kununurra Diversion Dam (capacity 98.7 mil. cubic metres) to 30 farms averaging 270 hectares plus a 970 hectare pilot farm was completed in 1965. Cotton was the principal crop, with grain sorghum and fodders for cattle fattening also important. Completion in 1971 of the Ord River Dam, which stores 5,720 mil. cubic metres in Lake Argyle, has allowed expansion of the area to be irrigated into the second stage. Five farms averaging 388 hectares were allocated in 1973. Since then, cotton has been phased out due to high off-farm costs and increasing costs of insect control specific to the cotton industry. The main crops being grown at present are rockmelons, sorghum, pumpkins, maise and soyabeans. Other crops grown include watermelons, cucumbers, bananas, hay, peanuts and sunflowers. A pilot sugar farm has produced high yields and has resulted in proposals for a sugar industry to be established. The proposals are being considered by the State Government.

The Camballin Irrigation District on the Fitzroy River flood plain in the West Kimberleys is dependent on diverted river flows and a small volume of storage behind the diversion structures on the Fitzroy River and Uralla Creek. Grain and fodder sorghums are the main crops. Although a large area was developed for irrigation, the expansion of activity that was expected by the Australian Land and Cattle Company was cut short in February 1982 when this company was placed in the hands of a receiver-manager and in May 1982 the receiver placed the project under 'care and maintenance'. A small area is being cropped.

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, WESTERN AUSTRALIA 1983–84p

(Hectares)

	Method				
Crops and Pastures	*Sprays*	*Furrows and/or Flood*	*Trickle (a)*	*Other and multiple methods*	*Total*
Pure Lucerne	908	594	n.a.	101	1 603
Other pastures (sown or native)	1,871	13,310	n.a.	437	15,618
Cereals for all purposes	409	968	n.a.	28	1,405
Vegetables for human consumption	2,945	481	192	470	4,088
Fruit	1,481	403	1,604	262	3,750
Grapevines	23	10	144	12	189
All other crops	413	1,015	327	62	1,817
Total	**8,050**	**16,781**	**2,267**	**1,372**	**28,470**

(*a*) Includes micro-sprays.

SOURCES OF IRRIGATION WATER, WESTERN AUSTRALIA 1983–84p

Source of supply	*Area irrigated*	*Percentage of total area irrigated*
	(hectares)	%
Surface water		
from State irrigation schemes	11,864	42
from other schemes (including private group schemes)—		
from rivers, creeks, lakes, etc. (*a*)	2,168	8
from farm dams	4,832	17
Total surface water	*18,864*	*66*
Underground water supply (e.g., bore, spear, well) (*b*)	5,270	19
Town or country reticulated water supply	4,337	15
Total all water sources	**28,470**	**100**

(*a*) Includes regulated and unregulated streams. (*b*) Naturally or artificially replenished.

Country water supplies controlled by Department of Public Works

Since 1947 enlargement and extensions of the Goldfields and Agricultural Water Supply and the development of the Great Southern Towns Water Supply have been carried out, mainly in accordance with a project known as the Modified Comprehensive Scheme. Under this scheme water has been supplied to towns and farms in the cereal and sheep districts of the State. Two years after the completion of the 1.7 million hectare scheme in 1961, an extension of 1.5 million hectares was agreed to with Federal-State funding.

Goldfields and Agricultural Water Supply. Water for the Eastern Goldfields is supplied by pipeline from Mundaring Reservoir in the Darling Range. The scheme now serves over 90 towns and 2.7 million hectares of farmland.

West Pilbara Water Supply. The West Pilbara Water Supply serves consumers in the towns of Dampier, Karratha, Roebourne, Wickham and Point Samson and industrial complexes at Dampier, Cape Lambert and the Burrup Peninsula. Water is supplied from the Millstream groundwater source. Future augmentation will be from the Harding Dam which is at present under construction.

Geraldton Regional Water Supply. The Geraldton Regional Water Supply is supplied principally from the Allanooka groundwater source and a small amount from Wicherina (groundwater plus catchment). Towns supplied are: Geraldton, Denison, Mullewa, Dongara, Walkway, Narngulu and Eradu.

Great Southern Towns Water Supply. This scheme provides water to towns and localities from Wellington Dam to Narrogin and along the Great Southern Railway from Brookton to Tambellup, supplying 32 towns and 0.6 million hectares of farmland.

Port Hedland Water Supply. The Port Hedland Water Supply supplies Port Hedland, South Hedland and Wedgefield from the Yule River and De Grey groundwater sources.

The Mandurah Regional Water Supply. This scheme obtains supplies from the South Dandalup Dam and the Ravenswood groundwater source. Towns supplied are Mandurah, Yunderup, Furnissdale, Coodanup, Riverside Gardens and Ravenswood. Extension of the scheme to localities north and south of Mandurah is in progress.

MAJOR WATER SUPPLY SCHEMES
COMPARATIVE PUMPING STATISTICS FOR PAST YEARS
(millions of cubic metres)

	1979-80	*1980-81*	*1981-82*	*1982-83*	*1983-84*
Goldfields and Agricultural Areas Water Supply	23.61	25.43	24.70	26.28	29.83
West Pilbara Water Supply	9.39	9.81	10.50	11.46	11.00
Geraldton Regional Water Supply	6.97	7.43	7.20	7.31	6.88
Great Southern Towns Water Supply	6.49	6.19	5.88	6.72	5.72
Port Hedland Water Supply	6.00	5.97	5.78	6.07	5.03
Mandurah Regional Water Supply	1.83	1.94	2.11	2.75	3.18

Local and Other Regional Water Supplies. As well as the major water supply schemes above, water is also supplied by the Government from 8 other Regional Water Supply Schemes to 21 towns and from 102 local water supply schemes to 103 towns. The water comes from a variety of sources including underground, artificial catchments and stream flows.

Aboriginal Communities Water Supplies. Work has commenced on a program to upgrade the water services of remote Aboriginal communities. The program involves providing a town level of service to 40 communities and a basic level of service to 30 outstations. Water for these supplies will come predominantly from underground sources, with only one community being supplied from a river flow and another from an artificial catchment. Investigations and design work has largely been completed and construction work has commenced. Services to 7 communities will be completed by the end of 1984-85.

Underground water

Considerable use is made of groundwater by individual farmers, pastoralists, market gardeners and others, although the water quality varies from place to place and much of it is too saline for irrigation or even stock purposes. Artesian wells throughout the State and non-artesian wells within 'declared' areas must be licensed under the *Rights in Water and Irrigation Act, 1914–1978.* Industries also use groundwater in substantial quantities, especially in the processing of titanium, iron and alumina, and this demand has intensified the search for groundwater.

For more detailed information on Water Resources in Western Australia see the chapter entitled *Land Tenure and Settlement, Water Supply and Sewerage* in the latest edition of the Western Australian Year Book.

Tasmania

Main purposes of water conservation and utilisation

Because of the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are permanently flowing. The only large-scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately-sized dams built by mining and industrial interests and by municipal authorities for town water supplies. 'Run of the river' schemes are quite adequate for assured supply in many municipalities. The main supply for Hobart and adjacent municipalities originates from a 'run of the river' scheme based on the Derwent River. The river is controlled in its upper reaches by eight dams, built for hydro-electric power generation, and these tend to stabilise river flow.

Until a few years ago irrigated areas were negligible except for long established hop fields, but there is a rapidly expanding use of spray irrigation on orchards, pastures, potatoes, beans and peas. Until recent years there has been almost complete dependence on natural stream flows, but the need for some regulating storages has become apparent. Increasingly, farmers are constructing storages of their own and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water suitable for stock, minor irrigation works and domestic use is exploited in the consolidated rocks of southern, midlands and north-western Tasmania. In the south and midlands, nearly all groundwater is obtained from Permian and Triassic rocks. In the north-west, water is recovered from a variety of rocks ranging from Precambrian dolomites, quartzites and schists to Tertiary basalts and Quaternary sands. The highest yields are obtained from the dolomites and the basalts. In the central north and north-east, unconsolidated Tertiary clays and gravels yield water of variable quality. In some coastal areas, notably King and Flinders Islands, water is obtained from aeolian sands.

The Mines Department is charged with the investigation of underground water resources. There is a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. The State's largest rivers discharge in the west, but diversion to the eastern half of the watersheds is not regarded as practicable. The Hydro-Electric Commission, however, has planned for the future development of four storage dams in the West Coast region on the Pieman, Murchison and Mackintosh Rivers.

Administration

In Tasmania, water supply was once exclusively the responsibility of local government authorities, but three statutory authorities, the Metropolitan Water Board, the Rivers and Water Supply Commission and the North West Regional Water Authority, now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart, Launceston and N.W. Coast regions, and directly to certain industrial consumers. The Board is responsible for bulk supplies to the Hobart, Clarence, Glenorchy to Kingborough, Brighton, Green Ponds, New Norfolk, Richmond and Sorrell local government areas, while the Commission exercises a general control over the utilisation of the State's water resources and has specific functions in relation to local government authority water, sewerage and drainage schemes. The Authority controls the supply of water to the municipalities of Circular Head, Wynyard, Penguin, Ulverstone, Devonport, Latrobe and Kentish.

Rivers and Water Supply Commission. The Commission is empowered by the *Water Act 1957* to take water at streams and lakes, or to issue others with licences to do so; licensing covers supply to specific industries and municipalities as well as for irrigation. The Commission is concerned with drainage trusts' operations, river improvements (including repairs after flood damage), stream gauging, its own regional water schemes, and with water supply, sewerage and drainage of towns. It operates in a similar manner to the Metropolitan Water Board in controlling the water schemes serving the East Tamar region (North Esk Regional Water Supply), the West Tamar area (West Tamar Water Supply) and the Prosser River Scheme, which was originally constructed to supply water to a sodium alginate industry at Louisville near Orford and to supplement the water supply of the township of Orford. The sodium alginate industry ceased production in December 1973. The North Esk Regional Water Supply was constructed to meet industrial requirements of the alumina refinery and other industries at Bell Bay, and to provide bulk supplies to surrounding municipalities on the eastern bank of the River Tamar and has since been augmented by the construction of a dam on the Curries River to supply the northern end of the Tamar Valley. The West Tamar Water Supply was constructed primarily to meet domestic requirements of urban areas in the Beaconsfield municipality. The local government authorities retain primary responsibility for reticulation and sale to consumers, except to certain industrial users.

In municipalities not serviced by the Metropolitan Water Board, the Rivers and Water Supply Commission or the North West Regional Water Supply Authority, the supply of water is a function of the local municipal council. Where the construction of water and sewerage schemes is beyond the financial capacity of a local government authority, or if it requires assistance to pay for water supplied from regional schemes, the Minister may approve the payment of a subsidy.

Irrigation

The Cressy-Longford Irrigation Scheme officially opened in 1974 and was the first major State irrigation project to be established in Tasmania. The source of supply is the Tailrace of the Poatina Hydro-Electric Power Station from which up to 160 thousand cubic metres per day may be available to farmers inside the Irrigation District and along the Liffey River downstream from Pitts Lane.

There are some 10,000 hectares fit for irrigation within the Irrigation District, half of which may be watered by gravity. The Scheme serves some seventy-two farms within the Irrigation District and another thirty may be supplied on the Liffey River and on the fringes of the Irrigation District.

Besides the Cressy-Longford Irrigation Scheme which is operated by the Rivers and Water Supply Commission, the following local bodies supply water for irrigation or inter-alia exercise control over its availability: the Lawrenny Water Trust on the Ouse River, the Clyde Water Trust on the Clyde River, the Macquarie Water Trust on the Macquarie River at Ross and the Campbell Town Council on the Elizabeth River.

The major portion of the 40,220 hectares irrigated in the State in 1983-84 were watered by private schemes either by pumping directly from unregulated streams or from on farm storages. Pasture still predominates as the main crop watered but potatoes and other vegetables amount to 33 per cent of the total area irrigated.

CROPS AND PASTURES IRRIGATED, BY METHOD OF IRRIGATION, TASMANIA 1983-84p

(Hectares)

	Method				
Crops and Pastures	*Sprays*	*Furrows and/or Flood*	*Trickle (a)*	*Other and multiple methods*	*Total*
Pure Lucerne	873	61	n.a.	23	957
Other pastures (sown or native)	9,212	7,937	n.a.	715	17,864
Cereals for all purposes	1,453	101	n.a.	114	1,668
Potatoes	3,915	51	7	772	4,745
Other vegetables for human consumption	7,129	45	16	1 212	8,402
Fruit	1,120	53	843	150	2,166
All other crops	3,761	283	5	369	4,418
Total	**27,463**	**8,531**	**871**	**3,355**	**40,220**

(*a*) Includes micro-sprays.

SOURCES OF IRRIGATION WATER, TASMANIA 1983-84p

Source of supply	*Area irrigated*	*Percentage of total area irrigated*
	(hectares)	%
Surface water		
from State irrigation schemes	2,381	6
from other schemes (including private group schemes)—		
from rivers, creeks, lakes, etc. (*a*)	15,701	39
from farm dams	20,077	50
Total surface water	*38,159*	*95*
Underground water supply (e.g., bore, spear, well) (*b*)	1,658	4
Town or country reticulated water supply	403	1
Total all water sources	**40,220**	**100**

(*a*) Includes regulated and unregulated streams. (*b*) Naturally or artificially replenished.

For more detailed information on Water Resources in Tasmania see the chapter entitled *Local Government* in the latest edition of the Tasmanian Year Book.

Northern Territory

Administration

Under the Northern Territory *Control of Waters Ordinance 1938*, control of natural waters is vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases). The diversion of water is prohibited except under prescribed conditions. The Act requires that drilling for groundwater be carried out only by drillers who are registered under the Act. Registered drillers are required to provide the Government with information on bores drilled, including the location, depth and size of bore, strata encountered and water produced. In particular areas, described as Water Control Districts, where stricter control is necessary, the construction or use of a well or water bore without a permit can be prohibited.

Under the *Water Supplies Development Act 1960*, any landholder engaged in pastoral or agricultural production may seek information or advice from the Commissioner of Water Development who is appointed under the Act. He may also apply for an advance towards the cost of work proposed to be carried out. The Act also provides for a refund to the landholder of the cost of drilling an unsuccessful bore where the landholder has applied to the Commissioner for advice on its construction and has carried out all drilling operations in accordance with advice given.

Northern Territory water legislation is under review. It is proposed that the above mentioned Acts will be amalgamated into a new 'Water Act' in *1985*.

The Water Division of the Department of Transport and Works carries out systematic stream gauging, the collection of data relating to the quantity and quality of surface and groundwater, the planning and operation of town water supplies, management of water resources throughout the Territory and flood prevention and control. It also provides a general advisory service to the public on water resources and water conservation by providing information on the prospects of obtaining groundwater, the possible location of bore sites, the method of drilling and equipping bores, stream flows, surveys of dam sites, the design of water supply schemes and reticulation lay-outs, and the chemical and bacteriological quality of water supplies. It is involved in water pollution studies and control, and carries out environmental assessments of water and related developments. The Division administers both of the acts described.

Underground water

For information on underground water resources in the Northern Territory *see* Year Book No. 55 and earlier issues, and the Australian Water Resources Council's publication, *Groundwater Resources of Australia, 1972* and *Review of Australia's Water Resources, 1975.*

Of approximately 17,000 bores and wells registered in the Territory up to 30 June 1984, 40 per cent were for pastoral use, 20 per cent were investigation bores, 20 per cent served town and domestic supplies, 3 per cent were for crop use, 10 per cent were used on mining fields, and the remainder for various other uses.

Community water supplies

The largest water conservation projects in the Territory are the Darwin River Dam (259.0 million cubic metres) and the Manton Dam (15.7 million cubic metres) which both serve Darwin with a reticulated water supply. Groundwater from McMinns Lagoon area can be used to augment supply.

Most other towns and communities, including Alice Springs, Tennant Creek, Jabiru and Nhulunbuy, are supplied from groundwater.

Surface water measurement

The hydrological investigations required in the Northern Territory as part of the National Water Resources Assessment Program are being carried out by the Water Division. The program for the Northern Territory includes establishment of base stream gauging stations and pluviographs (automatic rainfall recorders). In particular areas of development where water supply or irrigation proposals require special or extra surface water data, supplementary gauging stations are built to obtain this information. Intensive studies are being undertaken in the Alligator Rivers Region and other mining areas for the collection of both quantitative and qualitative data for environmental and management purposes.

Irrigation in the Territory is not extensive, being confined to isolated locations near Darwin, Adelaide River, Daly River, Katherine, Ti Tree and Alice Springs for the purpose of growing fruit, vegetables, fodder crops, pastures and some dairying. Some of this irrigation is carried out using bore water.

There is increasing demand for water resources assessment studies and assistance for relatively small irrigation projects.

Australian Capital Territory

Surface water

Surface water storages supplying Canberra (population about 240,000) and the city of Queanbeyan (population about 21,000) are located to the south-west and south-east. The storages to the south-west are in the heavily timbered, mountainous Cotter River catchment within the A.C.T., the storages being Corin Dam (75.5 million cubic metres), Bendora Dam (10.7 million cubic metres) and Cotter Dam (4.7 million cubic metres). The storage to the south-east is in New South Wales in the Queanbeyan River catchment (over which the Commonwealth has permanent water rights) on the western slopes of the Great Dividing Range is the Googong Dam (125 million cubic metres).

The existing storages on the Cotter and Queanbeyan rivers have an ultimate combined capacity to serve 450,000 persons. The remaining water resource within the A.C.T. is the Gudgenby River which is at present not utilised but has the potential to serve approximately 200,000 persons.

The A.C.T. water supply system is operated and maintained by the Department of Housing and Construction. This Department operates a network of stream gauging stations in the A.C.T. to monitor surface water resources. A number of the gauging stations are provided with telemeters which enable the Department to provide a flood warning system in association with the Bureau of Meteorology.

Groundwater

Groundwater in the A.C.T. and environs occurs mainly in fractures in crystalline rock such as granite and volcanic rocks; in folded and fractured slate; and, rarely, in solution cavities in limestone. Alluvial aquifers of significance are restricted to the Lake George basin and small areas along mature sections of the Molonglo and Murrumbidgee rivers. Groundwater has been used in the past by most primary producers to augment surface storage. Groundwater production bores in the A.C.T. have yields ranging between about 0.4 and 20 cubic metres per hour; 3 cubic metres per hour is about the average yield. However, many farm bores have fallen into disuse as a result of the Government's resumption of freehold land within the A.C.T., and because of the rapid expansion of urban growth. The Bureau of Mineral Resources has provided a bore-siting, groundwater-quality and yield-prediction service in and around the A.C.T. since the early 1950s and until 1978 maintained a network of 48 observation bores which had been monitored regularly for up to 25 years. Periodic monitoring of the bores recommenced in 1980 as a consequence of greatly increased demand for the Bureau's rural bore siting services during the current drought. Data are now being collected on groundwater occurrences within the A.C.T. and environs for preparation by the Bureau of a 1:100,000 scale hydrogeologic map.

Control of irrigation and farm water supplies is exercised by the Department of Territories and Local Government. The Bureau of Mineral Resources of the Department of Resources and Energy provides technical advice to landholders and drilling contractors on groundwater and, occasionally, on runoff.

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CHAPTER 16

MINERAL INDUSTRY

GENERAL

Geology and mineral resources

General geology

Most of the western and central part of the Australian continent consists of basement rocks of Precambrian age. Younger Palaeozoic rocks, mostly of geosynclinal origin, form a discontinuous belt several hundred kilometres wide extending from north Queensland to Tasmania. Mesozoic platform sediments form a broad zone separating the Palaeozoic and Precambrian rocks and extending from the Gulf of Carpentaria to central New South Wales. Cainozoic rocks occur mainly in Victoria, south-western New South Wales and southern South Australia, and as residual basalt cappings over extensive areas of the Palaeozoic rocks of eastern Australia.

Economic geology

Minerals of economic significance occur throughout Australia, their geological age ranging from Precambrian to Recent. Many of the large deposits such as those at Broken Hill (N.S.W.), Mount Isa (Qld), the Kalgoorlie and Pilbara regions of W.A. and the Alligator Rivers area of N.T. are Precambrian in age. In eastern Australia the major deposits such as the Elura, Cobar, Woodlawn and Rosebery base-metal deposits and most of the black coal deposits, are Palaeozoic in age. The black coals of the Moreton district of Queensland, northeast New South Wales and Leigh Creek, S.A. are of Mesozoic age. Deposits formed in Tertiary times include the brown coal in Victoria, the bauxites of Weipa (Qld), Gove (N.T.) and the Darling Range (W.A.) and the nickeliferous laterites at Greenvale (Qld).

Mineral resources

Australia is self-sufficient in most minerals of economic importance (and much more than self-sufficient in some). Known adequate reserves of major minerals with production sufficient for domestic demand and exports include aluminium (bauxite and alumina), black coal, copper, gold, iron ore, lead, natural gas, nickel, salt, silver, tin, tungsten, uranium and zinc. Reserves sufficient for domestic demand include clays (except light grade china clay), brown coal and dolomite.

For further details of principal Australian mineral deposits, and notes on principal mineral resources, *see* Year Book No. 61, pages 925–932 and the Australian Mineral Industry Quarterly and Annual Reviews.

Administration

All mineral rights in Australia are vested in the Crown except those on land which was granted before the Crown began to reserve mineral rights. In practice, these private mineral rights are important only in the New South Wales coalfields. In the States, these rights are held by the State Governments. On 1 July 1980, executive authority with respect to mining and minerals except in relation to certain prescribed substances within the meaning of the Atomic Energy Act (principally uranium) was transferred from the Commonwealth Government to the Northern Territory Government. Private mineral rights in the Australian Capital Territory are vested in the Commonwealth Government. The Commonwealth Government is able also to influence over-all development and production activity in the mineral industry by virtue of its statutory powers with respect to international trade, customs and excise, taxation and loan raisings. Certain specially-formed bodies such as the Joint Coal Board and the Australian Atomic Energy Commission have been given administrative responsibility in defined areas.

Mineral exploration and development

Onshore. Each State or Territory has its own mining Acts or Ordinances and regulations governing the prospecting for and working of mineral deposits. These Acts and regulations, although similar in principle are different in detail. They all make provision for a miner's right to prospect and for small mining leases for mineral production. The principles embodied were established many years ago when mining operations were generally small scale and labour-intensive. Although amendments have been enacted to modernise the legislation, it is generally inadequate for the large-scale capital-intensive operations often involved with modern mineral development. For this reason a large enterprise may take the course of acquiring mining titles by negotiations with the appropriate Minister for Mines and having the agreed terms and conditions embodied in an Act of the State Parliament. This method of acquisition has been used in several cases where the leasing company undertook an obligation (such as the erection of a large treatment works) in return for leases over large areas for a long period, and has become more common in recent years (e.g. iron ore in Western Australia, coal and bauxite in Queensland, bauxite in the Northern Territory). Mining legislation enacted in recent years is simpler and more suited to modern conditions.

As a result of the introduction of large-scale modern prospecting methods (particularly airborne prospecting), small prospecting areas were found to be unsuitable in some instances, and steps have been taken in the States and Territories to ensure the availability of large areas for prospecting by interested persons. Large areas may be made available by provision within the Mining Acts or Ordinances for the issue of authorities to prospect over an area defined by a written agreement which also sets out provisions as to the amount of money to be spent, methods of prospecting, tenure of the agreement, etc.

The tenure of such areas is limited (usually to one or two years) and, if renewed for a further period, is only over an area selected from the larger area (usually 50 per cent) as a result of work done during the life of the initial agreement. It does not give the holder any rights over, or authority to prospect on, land already held under a mining title within the agreed area. Unless specifically stated in an agreement, the discovery of minerals, whether inside or outside an area covered by an authority to prospect, gives the discoverer no legal rights except the right to apply for a mining lease over the area in which the discovery was made. Suitable prospects are converted to mining tenements by making application for lease under the appropriate mining Act.

Offshore. Following the enactment of the *Seas and Submerged Lands Act* 1973 the High Court confirmed that the Commonwealth has sovereignty over the territorial sea and sovereign rights over the resources of the whole of Australia's continental shelf. However, in the offshore constitutional settlement between the Commonwealth and the States reached in June 1979, it was agreed that responsibility for mining within the outer boundary of the 3 mile territorial sea should lie with the States, while the Commonwealth should have responsibility for areas beyond.

The Minerals (Submerged Lands) Act 1981 passed by the Commonwealth Parliament in June 1981 follows the scheme of the offshore petroleum legislation amendments passed in 1980 and provides for Joint Commonwealth/State Authorities to be responsible for major matters under the legislation with the States being responsible for day-to-day administration. The legislation will be proclaimed to come into effect when complementary State legislation in respect of the 3 mile territorial sea, currently in preparation, is enacted. In the meantime administration of offshore mining is carried out under the States' onshore mining legislation on an interim basis.

The mining code under the new legislation provides for a two-stage system of titles: the exploration permit, which covers all forms of exploration, and the production licence, which covers development.

Petroleum exploration and development

Onshore. In Australia, all petroleum is the property of the Crown. Consequently, full control of petroleum mining rights is vested in the Government or Administration of each State or Territory. Any company, organisation or individual proposing to undertake petroleum exploration or development must first satisfy the Government concerned that the necessary financial and technological resources are available to carry out the operation.

There are three main types of petroleum title:

(i) the permit, covering initial geological, geophysical and exploration drilling;
(ii) the licence (in Victoria only), which covers detailed surveys and drilling; and
(iii) the lease, which covers development operations and production.

Offshore. In the offshore constitutional settlement between the Commonwealth and the States reached in June 1979, it was agreed that, as in the case of mining for other minerals, responsibility for administering petroleum exploration and production within the outer boundary of the 3 mile territorial sea would be a State responsibility, while the Commonwealth would have responsibility for the continental shelf beyond the 3 mile territorial sea.

Amendments to the *Petroleum (Submerged Lands) Act* 1967 passed by the Commonwealth Parliament in May 1980 and proclaimed on 14 February 1983, provide for a Joint Authority for the adjacent area of each State (beyond the 3 mile territorial sea limit) consisting of the Commonwealth Minister and the State Minister. The Joint Authorities are concerned with major matters arising under the legislation, and in the case of disagreement the view of the Commonwealth Minister will prevail. Day-to-day administration will continue to be in the hands of the State Minister as the Designated Authority and State officials.

The mining code applicable under the legislation provides for a two-stage system of titles: the exploration permit, which covers all forms of exploration including drilling, and the production licence, which covers development and production. The sharing of royalty between the State and the Commonwealth Governments is to continue on a 60-40 basis, and any override royalty payments will continue to be retained by the States. The offshore constitutional settlement and the operation of Commonwealth and State offshore petroleum legislation are being reviewed by the Commonwealth Government. Decisions on the outcome of the review and details of any changes are expected to be known in 1985.

On 27 June 1984, the Minister for Resources and Energy and the Treasurer announced final details of a resource rent tax to apply to offshore 'greenfields' petroleum projects from 1 July 1984. The resource rent tax is intended to replace royalties and excise and will constitute a deduction for company tax purposes.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally-accepted practice. In Australia, the responsibility for mineral royalties is largely a State concern, and all States currently collect some form of mineral royalty payments.

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large scale developments. These royalty rates may vary, depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are, the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by Governments in recent years are shown in the following table.

MINERAL ROYALTY RECEIPTS: GOVERNMENTS

($'000)

	1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
New South Wales(*a*)	49,062	35,879	86,938	116,682	88,186	105,403
Victoria(*b*)(*c*)	48,446	60,111	90,554	118,611	108,782	124,861
Queensland(*a*)	53,651	53,638	73,473	73,274	81,382	89,703
South Australia	4,106	4,541	5,869	7,312	8,811	9,321
Western Australia	54,519	57,810	66,712	78,341	81,330	102,454
Tasmania	2,093	2,193	5,261	3,557	2,209	2,082
Northern Territory(*d*)	277	1,256	2,551	5,666	3,020	2,934
Commonwealth Government(*c*)	23,002	28,031	43,337	54,567	52,321	68,193
Total	**235,156**	**243,459**	**374,695**	**458,010**	**426,041**	**504,951**

(*a*) Includes royalties on sand and gravel from Crown lands. (*b*) Includes royalties on brown coal paid by State Electricity Commission. (*c*) Includes royalties received under the *Petroleum* (*Submerged Lands*) (*Royalty*) *Act* 1967-68. (*d*) Excludes the mining royalties paid into Aboriginal Benefits trust fund prior to 1978–79.

Control of Exports

The Commonwealth Government has constitutional power over exports from Australia. Under the Customs (Prohibited Exports) Regulations exports of nuclear sensitive material, hydrocarbons and certain minerals and metals are prohibited unless permission is granted by the Minister for Trade or an authorised person.

Among other things, export controls are used to ensure that:

(i) fair and reasonable market prices are achieved;
(ii) adequate supplies are available for the domestic market;
(iii) international and strategic obligations are met;
(iv) the Government's nuclear safeguards and physical protection requirements on exports are met, consistent with Australia's international obligations in relation to uranium and nuclear materials; and
(v) account is taken of environmental considerations.

Export controls are administered on coal, iron ore, bauxite, alumina, petroleum and petroleum products, uranium, monazite and materials of nuclear significance. Controls on tin are applied in respect of Australia's obligations under the International Tin Agreement.

Of the remaining minerals and metals subject to Regulations 9 and 11, automatic approval covering expected shipments over a twelve-month period is given, on application, to export ores, concentrates, matte and oxides of copper, lead, manganese, nickel, tungsten and zinc; blister and refined copper, lead bullion, and salt. Approval to export mineral sands is freely given except where the Commonwealth considers there are environmental reasons which would make such exports undesirable. Approval to export monazite and xenotime is freely given subject to the requirements of the Government's nuclear safeguards policy being first met.

Exports of copper scrap and copper alloy scrap are embargoed and quotas apply to secondary copper ingots and other basic shapes made from scrap material.

No other minerals are subject to control.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Commonwealth Government and of the State of New South Wales to carry out special administrative functions in regard to the New South Wales black coal mining industry. In summary, the Board's functions are:

(i) to ensure that coal is produced in the State of New South Wales in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries;

(ii) to ensure that the coal resources of the State are conserved, developed, worked and used to the best advantage in the public interest;

(iii) to ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades, and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities; and

(iv) to promote the welfare of workers engaged in the coal industry in the State.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed on the following pages.

Commonwealth Government assistance

Assistance provided by the Commonwealth Government takes the form of income taxation concessions, subsidies, bounties, and technical assistance, mainly through the work of the Bureau of Mineral Resources, Geology and Geophysics (BMR) and the Commonwealth Scientific and Industrial Research Organization (CSIRO) as well as through the National Energy Research, Development and Demonstration Program.

Income taxation concessions as at 30 June 1984. Income derived from mining principally for gold in Australia is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent of the value of the total output.

Special deductions for capital expenditure incurred in the exploration for and development of petroleum (including natural gas) are allowable to a petroleum mining enterprise engaged in these operations in Australia. Capital expenditure allowable to petroleum mining enterprises includes, broadly, the costs of exploratory surveys, drilling and well-head plant; plant for the liquefaction of natural gas; access roads; and housing and welfare. The enterprise is entitled to these special deductions against income from any source. While the special deductions for exploration expenditure are deductible immediately against the net income of the enterprise, the deductions for capital expenditure on mining are allowable over the life of the oil or gas field or over ten years, whichever is the lesser, on a straight line basis.

An enterprise mining or prospecting for minerals other than petroleum and gold may also be allowed special deductions for capital expenditure. Broadly, allowable capital expenditure includes expenditure on exploration and prospecting; preparation of a site for extractive mining operations; buildings; other improvements and plant necessary for those operations; access roads; certain treatment plant; and housing and welfare.

The allowable capital expenditure of a general mining enterprise, other than costs of exploration, may be deducted against income from any source over the life of the mine or over ten years, whichever is the lesser, on a straight line basis. Expenditure incurred by a mining enterprise in exploring for general minerals is allowable as an immediate deduction against net income derived from mining operations.

Annual deductions for depreciation on petroleum mining plant or general mining plant may be allowed in lieu of spreading the cost over the life of the oil field or mine. The cost of exploration plant may also be deducted under the depreciation provisions of the law. The investment allowance scheme may permit a deduction at the rate of 18 per cent of the cost of certain new plant.

Special deductions are allowable for capital expenditure incurred on certain transport facilities for use in Australia primarily and principally, for the transport of raw minerals (other than petroleum or gold) and certain specified products obtained from the processing of such minerals, or for transporting petroleum between the oil or gas field and a refinery or other terminal. The special deductions apply to expenditure incurred on a railway, road, pipeline or similar transport facility and on certain port facilities or other facilities for ships. Allowable expenditure on transport facilities is deductible in equal annual instalments over a period of ten or twenty years at the option of the mining enterprise.

An income tax rebate of 27 cents for each dollar of share capital subscribed may be available to shareholders of petroleum mining companies exploring or mining for petroleum in Australia, including offshore areas, where those companies lodge appropriate declarations with the Commissioner of Taxation in respect of the moneys subscribed. By lodging those declarations, certifying that the capital subscriptions have been, or will be, spent on eligible outgoings within a specified period, the petroleum mining companies forgo deductions to which they might otherwise be entitled for capital expenditure.

Payments to producers and importers of phosphate fertilizers. The *Phosphate Fertilizers Subsidy Act 1963* provides for a subsidy to be paid on phosphatic substances produced in Australia or imported and sold for use in Australia as a fertilizer. Phosphatic substances used as a supplement to stock food are also regarded as being used as a fertilizer. Subsidy is payable at the rate of $12 per tonne in respect of superphosphate where the available phosphorus content is not less than 8.5 per cent or more than 8.9 per cent by weight. Outside this range, subsidy is payable at $138 per tonne of the available phosphorus content of the substance. The intention of the Act is to assist consumers of phosphate fertilizers (primary producers). The Act expires on 30 June 1985.

Payments to producers and importers of nitrogenous fertilizers. The *Nitrogenous Fertilizers Subsidy Act 1966* provides for a subsidy to be paid on inorganic nitrogenous substances produced in Australia or imported and sold for use in Australia as a fertilizer. Nitrogenous substances used as a supplement to stock food are also regarded as being used as a fertilizer. Subsidy is payable at the rate of $20 per tonne of the nitrogen content of which the goods consist. The intention of the Act is to assist consumers of nitrogenous fertilizers (primary producers). The Act expires on 30 June 1985.

Bureau of Mineral Resources, Geology and Geophysics. The role of BMR is:

(i) to develop an integrated, comprehensive, scientific understanding of the geology of the Australian continent, the Australian offshore area and the Australian Antarctic Territory, as a basis for minerals exploration; this to be done where appropriate in co-operation with State Geological Surveys and other relevant organisations and having regard to priorities for the search for minerals approved by the Minister for Resources and Energy;

(ii) to be the primary national source of geoscience data and to publish and provide information; and

(iii) to undertake mineral resource assessments in accordance with programs and priorities approved by the Minister for Resources and Energy with the advice of the BMR.

At 31 July 1984, 503 officers were employed at the BMR, this included 152 professional officers (geologists, geophysicists, chemists, engineers and mineral economists), 72 research scientists and seven in the Senior Executive Service.

BMR's research program is carried out by four Divisions—Geophysics, Continental Geology, Marine Geosciences and Petroleum Geology, and Petrology and Geochemistry. Mineral and petroleum resource assessments are undertaken by the Resource Assessment Division which includes Minerals and Petroleum Branches and a Uranium Resource Evaluation Unit. Other branches are Planning and Programs, Special Projects and Geoscience Services, and a Geoscience Database Branch is proposed.

The BMR maintains laboratories in Canberra engaged on geochemical, geochronological, organic geochemistry, and petroleum technological studies, and basic research into the design and testing of geophysical equipment. It also maintains geophysical observatories at Kowen Forest (Australian Capital Territory), Mundaring (Western Australia), Mawson (Antarctica), and Macquarie Island. The geophysical observatories are engaged in geomagnetic, ionospheric, and seismology research.

State Government assistance

In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and generally give a free technical service to the mining industry.

New South Wales. The primary objective of the Department of Mineral Resources is to promote the responsible development of mineral resources in New South Wales. The Department administers the various Acts (Coal, Petroleum and Mining) and grants titles to encourage and facilitate the exploration for, prospecting and development of, the State's mineral resources. The Department's staff is deployed in many diverse areas of activity to encourage and assist mining and resource development projects by the mining industry.

A wide range of services, information and advice is provided on many subjects including geological and geophysical investigations, scientific and chemical research, geological and metallogenic mapping, prospecting, mining legislation and administrative procedures. The Geological and Mining Museum, one of the States's foremost specialist museums, is maintained by the Department, as is the reference library of geology, mining and allied topics situated at the Department's head office and Bore Core Library situated at Londonderry, near Penrith.

The Department is engaged in the continuous assessment of the State's mineral resources; its coal exploration and assessment programme in particular has identified many coal deposits of high commercial promise.

Victoria. The Department of Minerals and Energy advises on, monitors, co-ordinates and implements energy policy. The Department conducts geological, groundwater and mineral surveys, produces geological maps, and issues scientific and technical reports thereon. Drilling operations are carried out and the results are used in sedimentary basin studies and to evaluate petroleum, mineral and groundwater potential. A comprehensive library and a geological museum are maintained, and a core library retains cores and cuttings from drilling operations. The administration of petroleum, pipeline, hazardous materials, mining and extractive industry legislation ensures that mineral and petroleum exploration and production (both onshore and offshore), mining and quarrying are regulated and controlled. Also that the manufacture, transport, storage and use of explosives and the storage and transportation of inflammable liquids and liquefied gases are carried on in a safe and effective manner. Technical assistance and limited loans and grants are available for mineral exploration and prospecting and for approved development operations. Five stamp batteries located throughout the State provide an ore-crushing service to enable test crushing to be made at nominal cost. Information is available on mining law and mineral statistics. Assays of ores; analytical services; advice on metallurgical treatments, industrial pollution and chemical problems are available. Information on the manufacture, handling and use of explosives, inflammable liquids and liquefied gases is also provided. Financial assistance is available to municipalities to reclaim mine-damaged land in areas where a reclamation committee recommends such action.

Queensland. The Department of Mines regulates, encourages and assists the search for and development of mineral and energy resources, including coal, petroleum and oil shale working through a system of authorities, leases and licenses issued under Acts of Parliament.

The Department provides assistance to mining by way of grants for construction and maintenance of roads in mining areas, repayable advances or subsidies for mine development, hiring of equipment, assistance to prospectors and geological services. Detailed information is collated from in-house geological studies and seismic surveys and continuous scientific appraisal of results achieved and reported by commercial exploration groups. The information effort is underpinned by a Departmental drilling program focusing on coal and mineral exploration and deep stratigraphic drilling.

The Department carries out a continuous inspection of mine safety and provides an expert technical advisory service to mining organisations. Other activities include research on mine safety and health and the administration of safety regulations on gas installations and storage of explosives. Additionally, the Department maintains an Assay Office at Cloncurry, a District Geologist's Office at Charters Towers and has Inspectors of Mines, both metalliferous and coal, stationed at various major centres throughout the State.

The Queensland Coal Board contributes to coal mining research programmes and undertakes sampling tests of Queensland coals. It can make funds available to colliery proprietors for equipment. It provides grants or loans for the provision of amenities for employees and for communities in Queensland coal mining areas. The Board also provides financial assistance for the Coal Miners' Health Scheme.

South Australia. The Department of Mines and Energy has as its principal functions the administration of mining and petroleum legislation including the granting of mineral leases and collection of royalties and fees; geological and geophysical investigations to ascertain the extent and nature of the State's mineral resources; drilling to test mineral deposits, petroleum reserves and underground water supplies; the testing and treatment of minerals, generally in arrangement with the Australian Mineral Development Laboratories; control of mining and rehabilitation; co-ordinating State Government activities and formulating policy advice in the discovery, assessment and development of all energy resources within the State.

Western Australia. The Western Australian Department of Mines operates fifteen State batteries throughout the goldfields, for the treatment of ore (principally gold) from prospectors and small mine owners, at a nominal charge. Through its Geological Survey Division, the Mines Department carries out geological investigations and surveys throughout the State. The results of this work are made available in both map and report format. The Government Chemical Laboratories Branch of the Mines Department provides analytical and research services to the mining and mineral exploration industry.

Tasmania. The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery; for sinking, repairing or de-watering of shafts; for construction of dams and water races; for testing and proving a deposit of any mining product; for developmental work; and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration. Other assistance is rendered to the industry through geological and engineering advice, ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant.

Northern Territory. The Department of Mines and Energy encourages the development of an efficient mining and processing industry. Through five divisions the Department administers relevant legislation and provides a wide range of services.

The N.T. Geological Survey Division elucidates the regional geology and geophysics of the Territory, researches new mapping, geological survey and mineral search techniques and provides technical information through its computer indexes at Darwin and Alice Springs.

Registration and orderly administration of mineral and petroleum tenure, and provision of essential drafting services fall within the ambit of the Policy and Administration Division.

Mines Division has primary responsibility for the development of policy and legislation relating to exploration and mining industries. It also provides advice to the government on special projects. The Division has regulatory responsibility in the fields of occupational hygiene, mine safety and environment protection to ensure the efficient, orderly and safe recovery and utilisation of the Territory's mineral resources. A range of services including technical and financial are also provided to prospectors.

Energy Division has primary responsibility for policy development, and advice to Government, on all energy matters. Its regulatory function in the petroleum exploration and development area is administered from Darwin and Alice Springs.

The Industrial Safety Division provides inspectorial, training and advisory safety services in the fields of construction safety, dangerous goods and machinery safety. These services are provided from the Division's offices at Darwin, Alice Springs, Tennant Creek and Katherine.

Research

Research investigations into problems of exploration, mining, ore-dressing and metallurgy are conducted by, government bodies, universities, private enterprise, or by the combined efforts of all these. A summary of their functions follows, for further information on research *see* Chapter 25, Science and Technology.

Australian Atomic Energy Commission

For a detailed description of the activities of the Australian Atomic Energy Commission *see* Chapter 18, Energy.

The Australian Mineral Development Laboratories

Technical consulting, contract research and process design for the mineral and associated industries is undertaken by The Australian Mineral Development Laboratories (Amdel). Operations are based in Adelaide with branch laboratories in Perth, Melbourne, Sydney and Townsville. This organisation is controlled by a council comprising representatives of the mineral industry, the South Australian Government and the Commonwealth Government. Extensive facilities are available in the fields of analytical chemistry, mineralogy, petrology, hydrocarbon fuels, chemical metallurgy and mineral engineering, process instrumentation and control, water and waste water treatment and materials technology. Both long and short term applied research is carried out and all investigations are conducted on a strictly confidential basis. Services in the field of pollution and environmental control are also available through the Amdel group, Aspect.

The Baas Becking Geobiological Laboratory

In 1965, the Baas Becking Geobiological Laboratory was established in the Bureau of Mineral Resources building in Canberra under the joint sponsorship of the Commonwealth Scientific and

Industrial Research Organization, the Bureau of Mineral Resources, Geology and Geophysics and the Australian Mineral Industries Research Association (*see* Research by private enterprise, below).

Subjects of current research are ore genesis and petroleum related investigations. Geological research is coordinated with the field research programs of the Bureau of Mineral Resources, Geology and Geophysics.

Bureau of Mineral Resources, Geology and Geophysics

The BMR is the largest geoscience research organisation in Australia. Its role is to develop an integrated scientific understanding of the geology of the Australian continent, its Territories and offshore areas, as a basis for mineral exploration and resource assessment. BMR carries out programs in:

- Fossil Fuels: including their origin and distribution in space and time; onshore sedimentary basin analysis; geophysical investigations of the structure of onshore basins; framework studies of Australian offshore areas; and modern marine processes.
- Minerals: including the origin and distribution in space and time; metallogenic provinces; the weathered zone; and related resources; airborne geophysical mapping and interpretation; crustal geophysics; and the origin and distribution of offshore mineral deposits.
- Groundwater, and basin hydrogeology.
- Earthquake hazards.
- National and international geoscience maps.
- Overseas programs: including land geoscience in Southeast Asia; marine geosciences in the Southwest Pacific; geoscientific co-operation with China; and Antarctica.
- Petroleum and mineral resource assessment.
- National geoscience data base.

Commonwealth Scientific and Industrial Research Organization

Minerals Research

Minerals research by the Commonwealth Scientific and Industrial Research Organization (CSIRO) is undertaken within the Institute of Energy and Earth Resources. The research has the objectives of improving methods of locating, evaluating, defining and characterising Australia's mineral resources and of planning their recovery, development and effective use consistent with the minimization of environmental stresses. Divisions of the Institute engaged in mineral research are the Division of Geomechanics at Syndal (Vic.); the Division of Fossil Fuels at North Ryde (N.S.W.); the Division of Mineral Chemistry at Port Melbourne (Vic.); the Division of Mineral Engineering at Clayton (Vic.); the Division of Mineralogy and Geochemistry at Perth (W.A.), North Ryde (N.S.W.) and Canberra (A.C.T.), the Division of Mineral Physics at North Ryde (N.S.W.), Lucas Heights (N.S.W.) and Port Melbourne (Vic.), and the Physical Technology Unit at Ryde (N.S.W.).

Department of Resources and Energy

The functions of the National Coal Research Advisory Committee which was established in 1964 have been incorporated into the National Energy Research, Development and Demonstration Council (NERDDC) which is administered by the Department of Resources and Energy. For details of NERDDC, which advises the Minister for Resources and Energy on matters relating to national energy policy *see* Chapter 18, Energy, and Chapter 25, Science and Technology.

University Research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

The Australian Mineral Industries Research Association Limited (AMIRA) is a non-profit organisation which was set up in 1959 by the Australian mineral industry to manage jointly sponsored research and development on behalf of the industry. There are more than 70 members of AMIRA, drawn from all parts of the mineral and petroleum industries. Membership ranges from small exploration companies to large mining houses and includes suppliers of services to the industry. The policy of the Association is determined by a Council elected by members.

AMIRA has no research facilities so organisations such as CSIRO, universities, consultants, suppliers or member companies carry out the research as contractors to AMIRA. Research contracts worth approximately $3.0 million per annum are handled by AMIRA.

International relations

Because Australia is a large supplier of certain minerals to the rest of the world, and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Commonwealth Government takes an active role in international consultations and discussions relating to minerals. The most important international commitments are discussed below.

International Tin Agreement

The First International Tin Agreement (of the post-war period) was in operation for five years from 1 July 1956 to 30 June 1961. It was followed by the Second, Third, Fourth, Fifth and Sixth International Tin Agreements, which came into force on 21 February 1962, 21 March 1967, 1 July 1971, 1976 and 1982 respectively. Australia joined the Fourth, Fifth and Sixth Agreements as a 'producing' (i.e. exporting) member, whereas in the first three agreements Australia's status had been that of a 'consuming' (i.e. importing) member. Details of the Second and Third Agreements are given in Year Book No. 57, pages 911–12. Details of the Fourth Agreement are given in Year Book No. 61, page 942, and those of the Fifth in Year Book No. 66, page 376.

The objectives and provisions of the present (Sixth) Agreement are broadly similar to those of its predecessors. The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading, aims at confining the prices within these limits. The Sixth Agreement provides for a larger buffer stock than in the previous Agreements of up to 50,000 tonnes of tin metal. For the first time, financing of the buffer stock is being shared equally between producers and consumers. In the event of persistent market disequilibrium through causes beyond the control of the buffer stock mechanism, the agreement provides for the regulation of exports and stocks to stabilise the market.

The sixth International Tin Agreement is administered by the International Tin Council, which is made up of the following governments: *Producers*—Australia, Indonesia, Malaysia, Nigeria, Thailand, Zaire; *Consumers*—Belgium-Luxembourg, Canada, Denmark, Finland, France, Germany (Federal Republic of), Greece, India, Ireland (Republic of), Italy, Japan, Netherlands, Norway, Poland, Sweden, Switzerland, and the United Kingdom. The producing countries hold a total of 1,000 votes, distributed so that each country receives five initial votes and an additional number corresponding to its percentage as laid down by the Agreement. The consuming countries hold a total of 1,000 votes also distributed so that each country receives five initial votes and an additional number proportionate to quantities consumed. The allocation of votes in each category is periodically reviewed.

Association of Tin Producing Countries

The Association of Tin Producing Countries (ATPC) came into force on 16 August 1983. Membership is open to countries which are net exporters of tin. The current members are Bolivia, Indonesia, Malaysia, Thailand, Zaire, Nigeria and Australia. The main objective of the ATPC is to encourage greater consumption of tin through research, development and promotion.

International Lead-Zinc Study Group

With the cessation of stockpile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious imbalance between world supply and demand for these metals. To meet this problem, a series of meetings of interested governments was held at which Australia was represented. These meetings culminated in the formation of the International Lead-Zinc Study Group which was established in January 1960. The Study Group comprises the following Governments: Algeria, Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Finland, France, Germany (Federal Republic of), Hungary, India, Iran, Ireland (Republic of), Italy, Japan, Mexico, Morocco, Netherlands, Norway, Peru, Poland, South Africa (Republic of), Spain, Sweden, Tunisia, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America, Yugoslavia and Zambia. The Group provides opportunities for inter-governmental consultations on international trade in lead and zinc and for studies of the world situation in lead and zinc.

Association of Iron Ore Exporting Countries (APEF)

Australia is a founder member of the Association of Iron Ore Exporting Countries (APEF). The other members of the Association are Algeria, India, Liberia, Mauritania, Peru, Sierra Leone, Sweden and Venezuela.

The objectives of the Association are to promote close co-operation among member countries with a view to safeguarding their interests in relation to the iron ore export industry; to ensure the orderly and healthy growth of export trade in iron ore; to assist member countries to secure fair and remunerative returns from the exploitation, processing and marketing of iron ore and to provide a forum for consultations and the exchange of information on problems relating to the iron ore export industry.

The Association consists of a Conference of Ministers, which meets biennially and is the supreme authority of the Association, a Board comprising representatives of member countries which meets twice a year, and a Secretariat which is located in Geneva.

Intergovernmental Council of Copper Exporting Countries (CIPEC)

The CIPEC was established in 1967 by the Governments of Chile, Peru, Zaire and Zambia as an intergovernmental consultative organisation.

Australia and Papua-New Guinea were admitted as Associate Members and Indonesia as a Full Member in 1975; Yugoslavia was admitted as an Associate Member in 1977. Associate Members may participate in meetings but have no voting rights and are not bound by CIPEC's decisions.

The key objectives of CIPEC are to co-ordinate measures to achieve continuous growth in real earnings from copper exports and to harmonise the decisions and policies of members relating to copper production and marketing.

International Bauxite Association

Australia joined the International Bauxite Association (IBA) as a founder member in October 1974. Other members are Dominican Republic, Ghana, Guinea, Guyana, India, Indonesia, Jamaica, Sierra Leone, Suriname and Yugoslavia. Members account for about three-quarters of world bauxite production with Australia accounting for nearly one third of world production.

The objectives of the Association are to promote the orderly and rational development of the bauxite industry; to secure for members fair and reasonable returns from the exploitation, processing and marketing of bauxite and its products for the economic and social development of their peoples, bearing in mind the recognised interests of consumers; and generally to safeguard the interests of member countries in relation to the bauxite industry.

The Association consists of a Council of Ministers which meets once a year, an Executive Board consisting of senior officials which meets three times a year and a Secretariat which is located in Kingston, Jamaica.

The IBA provides members with an opportunity to discuss common problems and evolve co-operative policies to facilitate further development of their bauxite/alumina/aluminium industries. The Association's work is mostly concerned with exchanging views and information on a range of industry matters. The commercial and technical aspects of formulating minimum export prices for bauxite and alumina have received particular attention. In November 1982 the Council adopted recommendations on minimum CIF prices for bauxite and alumina sold by member countries in 1983. Australia was not included in the majority that voted for the recommendations and is not bound by them. The Association publishes a Quarterly Review.

MINERAL INDUSTRY STATISTICS

Statistics in the following pages refer mainly to the mining industry, mineral production, mineral exploration, mineral processing and treatment, and overseas trade.

Mining industry statistics

This section contains statistics of the mining industry in Australia obtained from the annual census of mining establishments. The annual mining census is conducted throughout Australia on an integrated basis with other economic censuses, e.g. the annual census of manufacturing establishments, electricity and gas establishments and the periodic censuses of retail, wholesale trade, construction, transport and selected services establishments.

Statistics are also available for *enterprises* engaged in the mining industry. The latest statistics for mining are in respect of 1980–81 and were published in *Enterprise Statistics: Details by Industry Class, Australia,* 1980–81 (8103.0). Enterprise statistics for mining are now produced annually and should be available within two years of the end of the financial year to which they relate. A description of the statistics and broad summary tables, in respect of the 1979–80 and 1980–81 censuses and surveys are given in Chapter 17.

The following table shows key items of data for establishments in Australia for 1982–83 based on the 1978 edition of the *Australian Standard Industrial Classification* (ASIC).

MINING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS, 1982–83

Industry		*Establish-ments at 30 June*	*Average employment over whole year(a)*			*Wages and salaries (b)*	*Turnover*	*Stocks*		*Total purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expenditure less disposals*
ASIC code	*Description*		*Males*	*Females*	*Persons*			*Opening*	*Closing*			
		No.	No.	No.	No.	$'000	$'000	$'000	$'000	$'000	$'000	$'000
	Metallic minerals –											
	Ferrous metal ores —											
1111	Iron ores	23	7,071	1,051	8,122	204,924	1,622,300	207,123	261,113	782,159	894,131	60,112
1112	Iron ore pelletising	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
	Non-ferrous metal ores											
1121	Bauxite	6	1,877	193	2,070	53,583	307,032	17,276	18,377	68,206	239,927	31,790
1122	Copper ores	12	3,216	212	3,428	77,343	293,317	52,056	52,259	91,300	202,221	27,897
1123	Gold ores	92	2,945	195	3,140	69,671	398,560	54,142	59,389	146,835	256,971	115,291
1124	Mineral sands	12	1,239	98	1,337	27,487	143,173	52,996	64,073	74,484	79,766	5,281
1125	Nickel ores	5	2,359	205	2,564	70,336	251,012	32,199	28,158	115,464	131,507	66,583
1126	Silver-lead-zinc ores	15	6,958	359	7,317	171,563	644,513	94,573	135,741	194,584	491,097	92,932
1127	Tin ores	79	1,394	120	1,514	28,705	116,814	20,689	32,382	54,492	74,015	12,358
1128	Uranium ores	3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1129	Non-ferrous metal ores n.e.c.	8	788	123	911	19,818	94,235	40,777	38,035	34,708	56,784	3,711
11	*Total metallic minerals*	*257*	*29,172*	*2,676*	*31,848*	*764,586*	*4,374,069*	*699,866*	*853,668*	*1,728,958*	*2,798,911*	*422,082*
	Coal, oil and gas											
1201	Black coal	133	31,595	862	32,457	985,321	4,280,306	467,069	636,309	1,708,611	2,740,936	1,595,090
1202	Brown coal	4	2,362	10	2,372	66,650	178,771	21,460	21,816	43,217	135,910	3,011
1300	Oil and gas	18	2,736	521	3,257	81,092	2,138,397	47,889	73,988	180,202	1,984,294	1,405,827
	Construction materials											
1401	Sand and gravel	366	1,766	189	1,955	33,326	219,090	13,766	14,659	101,218	118,764	7,968
1404	Construction materials n.e.c.	448	3,740	381	4,121	76,452	425,667	43,639	48,173	203,419	226,781	12,418
14	*Total construction materials*	*814*	*5,506*	*570*	*6,076*	*109,778*	*644,757*	*57,405*	*62,831*	*304,637*	*345,545*	*20,385*
	Other non-metallic minerals—											
1501	Limestone	53	752	20	772	15,110	62,994	5,183	6,371	34,122	30,059	1,986
1502	Clays	115	245	32	277	3,980	28,461	4,050	4,653	17,559	11,505	336
1504	Salt	20	533	79	612	15,123	71,715	16,015	18,774	25,663	48,811	13,253
1505	Non-metallic minerals n.e.c.	128	955	130	1,085	21,485	121,615	13,738	31,715	88,952	50,640	35,364
15	*Total other non-metallic minerals*	*316*	*2,485*	*261*	*2,746*	*55,698*	*284,785*	*38,986*	*61,513*	*166,296*	*141,016*	*50,939*
	Total mining (excl. services to mining)	**1,542**	**73,856**	**4,900**	**78,756**	**2,063,124**	**11,901,085**	**1,332,675**	**1,710,125**	**4,131,922**	**8,146,613**	**3,497,334**

(*a*) Includes working proprietors. (*b*) Excludes amounts drawn by working proprietors.

Mineral production

This section contains details of the output (quantity and value) of principal minerals produced and the metallic content of ores, concentrates, etc.

The statistics shown have been derived from data collected in the annual mining census and in returns to the various State Mines Departments, supplemented in some cases by information made available by the Department of Resources and Energy and from other sources.

For details of the scope of mineral production statistics and their relation to mining industry statistics, and the principles for measuring the output of minerals, *see* Year Book No. 61 and earlier issues.

Quantity of minerals produced

The following tables show particulars of the quantities of principal minerals produced and contents of principal metallic minerals produced during 1982–83 and earlier years. Further data are available relative to all minerals in the annual publication *Mineral Production, Australia* (8405.0)

QUANTITY OF PRINCIPAL MINERALS PRODUCED

Mineral		*1980–81*	*1981–82*	*1982–83*
METALLIC MINERALS				
Bauxite	'000 tonnes	25,450	24,690	n.p.
Copper concentrate	"	866	905	n.p.
Copper ore	"	21,745	23,067	15,864
Gold bullion(*a*)	kg	13,806	21,008	n.p.
Iron ore	'000 tonnes	93,754	86,786	78,969
Lead concentrate	"	622	704	724
Lead-copper concentrate	tonnes	22,328	31,999	24,968
Lead-zinc concentrate	"	9,896	41,179	40,205
Manganese ore—				
Metallurgical grade	'000 tonnes	1,485	1,198	n.p.
Mineral sands—				
Ilmenite concentrate(*b*)	"	1,259	1,238	932
Rutile concentrate	"	273	220	n.p.
Zircon concentrate	"	461	459	404
Nickel concentrate	"	404	423	483
Tantalite-columbite concentrate	tonnes	235	263	149
Tin concentrate	"	24,204	24,604	20,424
Tungsten concentrates—				
Scheelite concentrate	"	3,800	3,364	2,307
Wolfram concentrate	"	2,463	2,017	1,502
Uranium concentrate	"	2,523	5,086	n.p.
Zinc concentrate	'000 tonnes	845	1,097	1,206
COAL				
Black coal—				
Bituminous	'000 tonnes	88,766	92,246	98,687
Sub-bituminous	"	7,308	7,172	8,880
Brown coal—				
For briquettes	"	2,891	2,658	1,956
Other	"	29,212	34,904	33,042
Briquettes	"	1,081	993	760
OIL AND GAS				
Crude oil (stabilised)	megalitres	23,052	22,378	22,069
Natural gas	gigalitres	10,435	11,550	11,654
Ethane	"	140	152	169
CONSTRUCTION MATERIALS(*c*)				
Sand	'000 tonnes	27,285	28,712	24,312
Gravel	"	14,338	16,088	13,240
Crushed and broken stone	"	53,891	58,478	50,619
Other (decomposed rock etc.)	"	41,162	33,965	29,957
OTHER NON-METALLIC MINERALS				
Asbestos (chrysotile)	tonnes	73,416	34,293	11,872
Brick, clay and shale	'000 tonnes	8,146	7,882	6,198
Limestone (including shell and coral)	"	11,894	12,790	n.p.
Salt	"	6,799	4,985	n.p.
Silica	"	1,828	1,895	n.p.

(*a*) Includes alluvial gold. (*b*) Includes ilmenite from which titanium dioxide is not commercially extractable and beneficiated ilmenite. (*c*) Excludes dimension stone.

CONTENTS OF PRINCIPAL METALLIC MINERALS PRODUCED

Contents of metallic minerals produced		*1980–81*	*1981–82*	*1982–83*
Antimony	tonnes	1,207	1,218	768
Cadmium	”	1,676	2,083	n.p.
Cobalt	”	3,513	3,075	2,833
Copper	”	246,441	259,707	235,302
Gold	kg	15,991	22,328	25,825
Iron(*b*)	'000 tonnes	59,064	54,886	n.p.
Lead	tonnes	381,377	454,776	n.p.
Manganese	”	717,209	587,919	n.p.
Monazite	”	12,676	10,636	10,536
Nickel	”	73,367	81,424	82,945
Palladium	kg	464	360	461
Platinum	”	69	65	55
Silver	”	759,290	887,569	n.p.
Sulphur	tonnes	338,734	414,551	n.p.
Tantalite-columbite (Ta_2O_5 + Nb_2O_5)	kg	91,930	129,635	78,975
Tin	tonnes	12,690	12,750	n.p.
Titanium dioxide (TiO_2)	”	1,008,386	940,946	n.p.
Tungstic oxide (WO_3)	mtu(*a*)	451,245	384,294	n.p.
Yttrium oxide (Y_2O_3)	kg	9,187	17,152	n.p.
Zinc	tonnes	481,887	623,904	n.p.
Zirconium dioxide (ZrO_2)	”	306,079	299,201	266,565

(*a*) Metric ton unit (mtu) equals 10 kilograms. (*b*) Excludes iron content of iron oxide not intended for metal extraction. Includes iron contained in iron concentrate.

Value of minerals produced

The following table shows the value of principal minerals produced during 1982-83 and earlier years. Further data are available in the annual publication *Mineral Production, Australia* (8405.0).

VALUE OF PRINCIPAL MINERALS PRODUCED
($'000)

Mineral	*1980–81*	*1981–82*	*1982–83*
METALLIC MINERALS			
Bauxite	n.p.	n.p.	n.p.
Copper concentrate	288,768	231,952	264,144
Copper ore	4,275	8,110	1,174
Gold bullion(*a*)	184,434	200,408	n.p.
Iron ore	1,007,307	1,131,186	n.p.
Lead concentrate	375,018	252,136	n.p.
Lead-copper concentrate	23,904	21,474	n.p.
Lead-zinc concentrate	6,074	8,445	9,723
Manganese ore—			
Metallurgical grade	59,207	46,136	n.p.
Mineral sands—			
Ilmenite concentrate(*b*)	33,200	36,610	26,737
Rutile concentrate	82,301	61,758	n.p.
Zircon concentrate	30,180	37,526	40,892
Nickel concentrate	n.p.	n.p.	n.p.
Tantalite-columbite concentrate	17,594	11,091	3,971
Tin concentrate	143,343	141,716	133,405
Tungsten concentrates—			
Scheelite concentrate	33,739	27,612	n.p.
Wolfram concentrate	19,606	15,607	n.p.
Uranium concentrate	192,755	356,219	n.p.
Zinc concentrate	188,075	n.p.	220,546
COAL			
Black coal—			
Bituminous	2,276,080	2,777,212	3,303,340
Sub-bituminous	116,380	143,903	205,531
Brown coal—			
For briquettes	..	..	..
Other	107,052	137,138	150,788
Briquettes	22,230	22,754	19,808

VALUE OF PRINCIPAL MINERALS PRODUCED
($'000)

Mineral	*1980–81*	*1981–82*	*1982–83*
OIL AND GAS			
Oil and Gas	*1,665,786*	*1,779,989*	*2,089,401*
CONSTRUCTION MATERIALS(*c*)			
Sand	95,958	110,239	112,502
Gravel	61,030	80,566	75,627
Crushed and broken stone	263,159	325,406	320,563
Other (Decomposed rock etc.)	80,768	90,535	92,634
OTHER NON-METALLIC MINERALS			
Asbestos (chrysotile)	25,735	14,464	4,766
Brick clay and shale	23,706	27,029	18,996
Gems			
Opal(*d*)	49,490	45,374	42,131
Sapphire	19,783	22,675	21,566
Limestone (incl. shell and coral)	44,153	58,785	n.p.
Salt	66,485	52,177	n.p.
Silica	15,858	18,494	18,357

(*a*) Includes alluvial gold. (*b*) Includes ilmenite from which titanium dioxide is not commercially extractable and beneficiated ilmenite. (*c*) Excludes dimension stone. (*d*) Partly estimated.

Foreign participation of the mining industry in Australia

Summary information on foreign participation in the mining industry in Australia is shown in Chapter 24, Foreign Transactions. More detailed statistics are available in *Foreign Ownership and Control of the Mining Industry and Selected Mineral Processing Industries, Australia 1981–82* (5317.0) and *Foreign Control in Mineral Exploration, Australia 1975–76* (5323.0).

Mineral exploration (other than for petroleum and oil shale)

Definition

Exploration consists of the search for and/or appraisal of new ore occurrences and known deposits of minerals (including extensions to deposits being worked) by geological, geophysical, geochemical and other methods (including drilling). Exploration for water is excluded. The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities carried out primarily for the purpose of commencing or extending mining or quarrying operations (including the construction of drives, shafts, winzes, etc. in underground mines, and the preparation of quarrying sites, including overburden removal, for open-cut extraction).

Sources of statistics

The statistics of exploration for minerals *other than petroleum and oil shale* are derived from the annual mineral exploration census conducted by the Australian Bureau of Statistics in each State and the Northern Territory (in New South Wales the census is conducted jointly with the State Department of Mineral Resources).

Classification

The data obtained in the mineral exploration census are divided into the following categories:

(a) *Private exploration on production leases*—relates to exploration carried out on the production lease by privately-operated mines currently producing or under development for the production of minerals.

(b) *Other private exploration*—relates to exploration carried out by private enterprises on areas covered by exploration licences, authorities to enter, authorities to prospect and similar licences and authorities issued by State Governments for exploration of minerals. Also included is exploration by private enterprises which is not directly connected with areas under lease, licence, etc.

(c) *Exploration by government*—relates to exploration of minerals carried out by Federal and State Government Departments, local government authorities and business undertakings operated by those departments or authorities.

Expenditure, metres drilled

The following table shows expenditure and metres drilled on private mineral exploration other than for petroleum and oil shale in Australia during the last six years.

PRIVATE MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM AND OIL SHALE)

	1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Expenditure ($'000)—						
On drilling	50,019	50,729	72,408	126,088	141,872	89,723
Other	108,378	131,780	213,722	344,401	433,700	348,188
Australia	**158,397**	**182,509**	**286,130**	**470,489**	**575,572**	**437,911**
Metres drilled ('000)—						
Drilled-core	557	565	862	1,156	1,201	871
Drilled-non-core	1,772	1,763	2,055	2,808	2,824	1,882
Australia	**2,329**	**2,328**	**2,917**	**3,965**	**4,025**	**2,752**

Oil shale exploration

Statistics of exploration for oil shale are derived from an annual exploration census conducted by the Australian Bureau of Statistics.

Exploration consists of the search for and/or appraisal of new ore occurrences and known deposits of oil shale (including extensions to deposits being worked) by geological, geophysical, geochemical and other methods (including drilling). The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities carried out primarily for the purpose of commencing or extending mining operations (including the construction of drives, shafts, winzes, etc. in underground mines, and overburden removal, for open-cut extraction).

In 1982-83 expenditure in Australia on private exploration for oil shale amounted to $26,150,000 with 23,000 metres being drilled.

Petroleum exploration

Source of statistics

These statistics of expenditure on petroleum exploration have been obtained by the addition of values collected in a quarterly survey conducted by the Australian Bureau of Statistics. Other data shown were collected by the Bureau of Mineral Resources, Geology and Geophysics. Further information relating to petroleum exploration is published by the Australian Bureau of Statistics in its annual publication *Mineral Exploration, Australia* (8407.0) and by the Bureau of Mineral Resources, Geology and Geophysics in *The Petroleum Newsletter* (issued quarterly) and *The Australian Mineral Industry Annual Review.*

Scope

Petroleum exploration consists of the search for and/or appraisal of deposits of crude oil and/or natural gas and natural gas liquids by geological, geophysical, geochemical, and other exploration methods, including drilling. Included in the expenditure are the costs of drilling exploratory oil and/or gas wells and the testing of such wells. Also included are the costs of access roads, site construction, permits, licences and similar fees, relevant office buildings and furniture, transportation equipment, storage facilities, plant and equipment, and review work where these are undertaken primarily for purposes of exploration for deposits of petroleum. Details of developmental oil and/or gas wells are excluded.

Operations

The following table shows particulars of expenditure, and wells and metres drilled in petroleum exploration in recent years.

PETROLEUM EXPLORATION

		1980–81	1981–82	1982–83
Expenditure—				
Private sources	$'000	368,330	803,983	927,405
Government sources	$'000	5,351	6,797	10,188
Total	**$'000**	**373,683**	**810,781**	**937,592**
Wells (a)—				
Drilled (i.e. those which reached final depth)—				
As oil producers	No.	14	21	36
As gas producers	No.	24	38	42
Plugged and abandoned	No.	56	99	143
Total	**No.**	**94**	**158**	**221**
Average final depth of wells drilled	m	1,747	1,999	2,047
Drilling still in progress at 31 December (uncompleted holes)	No.	11	17	14
Wells drilled or drilling over 3,000 metres	No.	24	18	31
Metres drilled (a)—				
Completed wells	m	180,157	296,818	426,208
Uncompleted holes	m	19,151	25,566	26,036
Total	**m**	**199,308**	**322,384**	**452,244**

(a) *Source*: Bureau of Mineral Resources, Geology and Geophysics. Data relates to years ended 31 December.

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only a part of mineral technology, as few minerals can be directly used in the form in which they are mined. In most cases minerals must undergo considerable processing and treatment before utilisation. The sectors of the economy which carry out this work are classified for statistical purposes to Manufacturing Industry (*see* Chapter 17, Manufacturing and Internal Trade).

Principal products

The following table shows particulars of the production of certain important manufactured products of mineral origin during recent years.

PRODUCTION (a) OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN

Commodity		*1980–81*	*1981–82*	*1982–83*
METALS(*b*)				
Non-ferrous—				
Alumina	'000 tonnes	7,235	6,651	6,701
Refined aluminium	tonnes	344,753	380,457	403,917
Blister copper(*c*)	"	167,778	177,344	172,163
Refined copper	"	159,437	163,052	172,456
Lead bullion (for export)(*c*)	"	149,027	180,675	179,462
Refined lead	"	206,127	207,242	212,176
Refined zinc	"	297,871	301,266	288,250
Refined tin	"	4,669	3,617	2,898
Ferrous—				
Pig iron	'000 tonnes	7,335	6,606	4,990
Steel ingots	"	7,012	6,198	5,392
Precious—				
Refined gold(*d*)	kg	12,494	17,773	25,784
Refined silver	"	315,584	325,105	303,889
FUELS				
Coal products—				
Metallurgical coke	'000 tonnes	4,676	4,198	3,338
Brown coal briquettes	"	1,081	993	760
Petroleum products—				
Diesel-Automotive oil	'000 tonnes	6,137	6,445	6,540
Industrial fuel and marine fuel	"	985	775	721
Fuel oil for burning	"	3,854	3,285	2,810
Automotive petrol	mil. litres	14,002	14,375	14,845

PRODUCTION (a) OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN—*continued*

Commodity		*1980–81*	*1981–82*	*1982–83*
BUILDING MATERIALS				
Clay bricks	millions	2,287	2,234	1,694
Portland cement	'000 tonnes	5,656	6,136	5,351
Plaster of paris	,,	443	480	n.p.
Plaster sheets	'000 sq m	63,617	63,768	51,229
CHEMICALS				
Sulphuric acid	'000 tonnes	1,976	2,039	1,734
Caustic soda	tonnes	n.p.	n.p.	n.p.
Superphosphate(*e*)	'000 tonnes	3,557	3,464	2,877

(*a*) Some products exclude production of single establishment manufacturing establishments employing less than four persons and production of establishments predominantly engaged in non-manufacturing activities but which may carry on in a minor way, some manufacturing. (*b*) Excludes secondary metal with the exception of pig iron and steel ingots. *Source*: Bureau of Mineral Resources, Geology and Geophysics (non-ferrous and precious metals only). (*c*) Metallic content. (*d*) Newly-won gold of Australian origin. (*e*) Includes double and triple superphosphate and ammonium phosphate expressed in terms of single superphosphate, i.e. 22% P_2O_5 equivalent.

Overseas trade

Exports and imports

For particulars of the quantities and values of the principal minerals and products exported from and imported into Australia during recent years. *See* Chapter 24. Foreign Transactions.

Considerable quantities of metallic ores, concentrates, slags, and residues are exported from Australia for refining overseas. The following table shows selected items exported during 1983 and their principal metallic content as estimated by assay.

PRINCIPAL METALLIC CONTENTS OF SELECTED ORES AND CONCENTRATES ETC. EXPORTED FROM AUSTRALIA, 1983

	Metallic contents—estimated from assay							
Ores and concentrates, etc.	*Copper*	*Lead*	*Zinc*	*Tin*	*Iron*	*Tungstic Oxides*	*Gold*	*Silver*
	tonnes	tonnes	tonnes	tonnes	'000 tonnes	tonnes	kg	kg
Copper concentrate	64,742	4,447	4,059	—	—	—	178	52,044
Blister copper	8,318	—	—	—	—	—	724	913
Copper matte, slags, etc.(*a*)	3,648	6,135	—	—	—	—	756	6,011
Lead concentrate	2,241	44,495	3,467	—	—	—	1,031	98,931
Lead bullion	—	159,390	—	—	—	—	112	420,435
Lead slags and residues	41	2,083	—	20	—	—	72	4,961
Zinc concentrate	1,222	12,546	389,645	—	—	—	—	58,720
Zinc slags and residues	—	—	5,048	—	—	—	—	—
Tin concentrate	—	—	—	6,202	—	—	—	—
Iron ore—								
Pellets	—	—	—	—	25,687	—	—	—
Fines	—	—	—	—	1,441	—	—	—
Lump	—	—	—	—	19,444	—	—	—
Scheelite concentrate	—	—	—	—	—	1,620	—	—
Wolfram concentrate	—	—	—	—	—	1,011	—	—
Total metallic content	**80,212**	**229,096**	**402,219**	**6,222**	**46,572**	**2,631**	**2,873**	**642,015**

(*a*) Includes copper matte, copper slags and residues and copper-lead dross and speiss.

Prices

The following table shows average prices of some principal refined metals and ores and concentrates on Australian and certain major overseas markets. Prices of minerals such as iron ore, coal and bauxite are not shown as these minerals are commonly sold on a contract basis rather than on an open market basis.

AVERAGE DAILY PRICES OF SELECTED METALS AND METALLIC ORES AND CONCENTRATES: AUSTRALIAN AND OVERSEAS MARKETS(*a*)

(*Source:* Bureau of Mineral Resources, Geology and Geophysics)

METALS

	Tin				*Aluminium*		*Gold*		*Silver*	
Period	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*Penang ($Mal-kg)*	*Nickel U.S.A. ($US—lb)*	*Aust. ($A—tonne)*	*U.S.A. (USc—lb)*	*Premium markets ($A—f. oz) Australia and Overseas*	*U.K. ($US—f. oz)*	*Aust. ($A—kg)*	*U.K. (Stg new pence—f. oz)*
1982 . .	10,483.49	7,320.35	30.17	3.25	1,370.00	47.58	373.51	375.95	244.71	455.78
1983 . .	15,960.81	8,571.10	30.20	3.25	1,587.40	68.72	471.61	424.52	411.38	753.63
1983										
Highest	17,477.00	9,291.00	31.83	3.29	1,825.00	80.00	531.00	511.50	495.81	943.65
Lowest	14,222.00	7,395.00	29.15	3.20	1,370.00	47.00	410.25	374.75	295.70	575.80

	Copper		*Lead*			*Zinc*			
Period	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*U.S.A. (USc—lb)*	*Aust. ($A—tonne)*	*L.M.E. (£Stg—metric ton)*	*Europe Prod. ($US—tonne)*	*U.S.A. (USc—lb)*
1982 . . .	1,474.50	846.73	622.61	310.98	27.14	848.96	425.42	847.83	39.05
1983 . . .	1,790.47	1,049.33	592.16	280.54	22.71	952.31	505.41	823.39	42.65
1983									
Highest	2,040.00	1,153.00	600.00	313.00	28.00	1,082.00	618.00	980.00	49.00
Lowest	1,520.00	905.00	550.00	258.00	19.00	851.00	420.00	750.00	36.00

ORES AND CONCENTRATES

Period	*Tin Aust. ($A–mtu)*	*Wolfram Europe (£Stg–mtu)*	*Ilmenite Europe ($A–metric ton)*	*Rutile Europe ($A–metric ton)*	*Zircon Europe ($A–metric ton)*
1982	114.34	102.17–106.50	26.50–28.92	253.33–265.00	110.42–115.42
1983	128.53	78.66–82.50	30.00–33.83	260.00–278.33	107.91–117.08
1983					
Highest	140.08	91.00	37.00	330.00	120.00
Lowest	118.04	71.00	27.00	230.00	115.00

(*a*) Where a daily price does not actually exist for a commodity, daily prices have been imputed from price data which are available.
NOTE: Prices data shown are those quoted in the relevant markets and are mainly derived from information collected and compiled by the Bureau of Mineral Resources. Overseas data are supplied to the Bureau of Mineral Resources by the *Metal Bulletin* and *Metals Week*.

REVIEW OF RECENT DEVELOPMENTS IN THE AUSTRALIAN MINERAL INDUSTRY

(*Source:* Bureau of Mineral Resources, Geology and Geophysics)

Major developments in the Australian mineral industry during 1983 are reviewed briefly in subsequent parts of this section. Additional information on developments in the industry is available in *Australian Mineral Industry Annual Review* 1983 published by the Bureau of Mineral Resources, Geology and Geophysics. That publication contains comprehensive reviews of mineral commodities of importance to the Australian economy, as well as a general review of the industry's performance during the year. The *Australian Mineral Industry Quarterly*, Volume 36, Number 4, details Australia's identified mineral resources, 1983.

General Review of 1983

The gross domestic product (GDP) of Australia in 1982–83 was $163,442 million, of which an estimated $10,100 million was generated by the mineral industry, excluding smelting and refining. If smelting and refining were included, an estimated $1,700 million could be added to this figure, thus making the mineral industry the largest primary sector contributor to the GDP. Australia's export trade increased substantially in both current and constant price terms to a new record level. Japan, the UK, the USA and the EEC were the main markets for mineral commodities, the UK displacing the USA in importance for the first time since 1969.

The ex-mine value of mineral products in Australia in 1983 reached a new peak of $10,570 million, $660 million higher than in 1982. More than half of this increase resulted from both higher output and prices for crude oil, and a significant contribution was made by the other energy minerals, natural gas, and coal. Performance of the metallic minerals group was subdued; gains made by bauxite, copper, gold and lead were offset by a decline in output of iron ore, mineral sands, nickel, tin, zinc, and uranium, resulting in a net fall of about $100 million. Diamonds contributed $65 million to the value of mine output in the first year of their production.

Imports—1983

The value of imports have been dominated by crude oil in the last few years, accounting for between 80% and 90% of Australia's mineral import bill. In 1983 imports of crude oil fell by 37% or almost $1,000 million to $1,764 million, resulting in Australia's lowest minerals import bill since 1979. Other significant mineral imports were gem diamonds, unrefined gold, phosphate, potassium fertilisers, and elemental sulphur. Imports of mineral primary products accounted for 9.6% of the total value of merchandise imports compared with 13.1% in 1982. This contributed to a record surplus of $7,644 million in Australia's balance of mineral trade in 1983, compared with $4,860 million in 1982.

Exports—1983

Australia's mineral exports rose by 18% in current price terms to $9,729 million. Most mineral exports held or improved their 1982 levels, the major exceptions being uranium, nickel, and tungsten. Minerals to show gains include alumina, black coal, copper, gold, iron ore, lead, crude oil, silver, tin and zinc. Black coal remains the largest single export earner, accounting for $3,335 million or 34% of the total value of mineral primary products exported.

Iron ore was the second largest export earner with a value of $1,577 million (an increase of 6%) followed by alumina which increased in value by 7% to $1,180 million. In total, black coal, iron ore and alumina accounted for nearly 63% of the total value of exports of mineral primary products. A significant contribution was also made by gold, silver, uranium and zinc.

Pattern of mineral trade—1983. Australia exported metals and minerals to more than 100 countries. Japan accounted for 42.4 per cent of Australian exports by value. Principal exports of mineral primary products to Japan were black coal, iron ore, aluminium, alumina, bauxite, copper, nickel, manganese ore and mineral sands.

The proportion by value of Australian mineral exports to the EEC was 11.3 per cent (including 9.3 per cent to the UK), and to the USA 8.8 per cent. To the EEC countries, exports were mainly iron ore, black coal, lead and copper, and to the USA alumina, nickel, bauxite, manganese ore, mineral sands, iron ore, lead, and zinc.

Bauxite, Alumina and Aluminium

In 1983, production of bauxite increased by 4 percent to 24.54 million tonnes, while aluminium production increased by 26 percent to 478,190 tonnes. Australia was again the world's largest producer of bauxite and alumina.

The commissioning of the new alumina refineries at Wagerup and Worsley, W.A., commenced in February 1984. Initial rated capacities are 500,000 tonnes per year, and 1,000,000 tonnes per year respectively.

The new Tomago, N.S.W., aluminium smelter began operations in August 1983 and full production capacity is 220,000 tonnes per year.

Work on the Portland, Victoria, smelter (initial capacity to be 132,000 tonnes per year) remained at a stand-still in 1983, pending resolution of electricity charges, equity ownership, and market outlets.

Expansion of the Kurri Kurri, N.S.W., aluminium smelter was due to be completed in 1984. This will increase total capacity from 90,000 to more than 140,000 tonnes per year. Comalco's aluminium smelter at Boyne Island, near Gladstone, Qld, is supplied with alumina from the nearby Queensland Alumina Ltd (QAL) refinery. The smelter has a capacity of 206,000 tonnes per year. The rated capacities of the other two Australian aluminium smelters, at Point Henry, Vic., and Bell Bay, Tas., are 165,000 and 117,000 tonnes per year respectively. Point Henry uses Western Australian alumina while Bell Bay obtains its alumina from Queensland.

Copper

A summary of the copper mining industry in Australia 1953 to 1975 and the sufficiency of present ore reserves was published in the *Australian Mineral Industry Quarterly*, Vol. 30, No. 1.

In 1983 mine production of copper increased to a record 264,244 tonnes. Western Mining Corporation Holdings Ltd (WMC) announced that recent exploration and development work had established within the Olympic Dam mineralised zone a probable 450 million tonnes of higher grade ore, averaging 2.5 per cent copper 0.8kg/tonne uranium oxide (U_3O_8), 0.6g/tonne gold and 6g/tonne silver. A study on the economic viability of the project should be completed by the end of 1984. WMC announced the discovery of economically significant secondary and primary copper mineralisation at their Nifty prospect in the Throssell Ranges, about 200 km east south-east of Marble Bar, W.A.

E Z Industries (EZI) announced plans for a feasibility study of the Scuddles copper-zinc deposit at the Golden Grove prospect near Yalgoo, W.A. EZI has been appointed operator for the underground evaluation program which is scheduled for completion in 1986.

Iron

A summary of growth of the Australian iron ore industry 1965 to 1975 was published in the *Australian Mineral Industry Quarterly,* Vol. 29, No. 1.

Production of iron ore in 1983 decreased to 71.0 million tonnes, 19.0 percent less than in 1982. Output fell in accordance with depressed domestic and export demand as well as the effects of industrial disputes. Export of iron ore and iron ore pellets was 74.3 million tonnes valued at $1,577 million. Australia was the largest exporter and fourth largest producer.

Production at the Koolyanobbing mine in Western Australia decreased by more than 60 per cent reflecting its closure in August. The closure had been deferred since April 1982 when the Kwinana blast furnace which it mainly supplied was shut down.

Cliffs Robe River Iron Associates began deepening its shipping channel at Port Walcott (Cape Lambert) to enable ship loads to exceed a previous limit of 190,000 tonnes.

Hamersley Iron Pty Ltd upgraded port facilities at East Intercourse Island to enable entry of 250,000 dwt ore carriers which can be loaded to 200,000 tonnes.

Silver, lead and zinc

Mine production of lead and zinc increased again in 1983 to new records; lead 477,000 tonnes and zinc 695,000 tonnes. A large increase in production occurred at Mount Isa and production was phased in at Elura from early in 1983.

Production of primary refined lead declined slightly in 1983 although zinc production remained at around the same levels as in previous years; lead metal production including secondary was 224,335 tonnes and zinc metal production including secondary was 303,018 tonnes.

A number of deposits underwent intensive evaluation in 1983. These included Hilton, Lady Loretta, Thalanga, Liontown, and Conjuboy, all in Queensland; Woodcutters, N.T.; Golden Grove and the Lennard Shelf in W.A.; Benambra, Victoria, and Hellyer in Tasmania.

Black coal

Raw black coal production in 1983 was a record 120.5 million tonnes, 1 per cent higher than in 1982. The output of saleable coal rose by 1 per cent to the record level of 98.7 million tonnes. Domestic consumption fell slightly from 37.5 million tonnes in 1982 to 36.9 million tonnes in 1983, mainly because of a drop of 2.1 million tonnes by the iron and steel industry. Exports rose by 22 percent to 60.5 million tonnes in 1983 and the value of exports rose to $3329 million. Of total exports 36.1 million tonnes were shipped to Japan.

Demand for steaming coal on the international market remained high. As a result Australian exports of steaming coal rose by 44 per cent to 18.3 million tonnes. At the same time, there occurred a 14 per cent growth in the exports of coking coal to 42.2 million tonnes. Several new mines commenced operation in 1983.

Papers dealing with the Australian coal industry have been published in the *Australian Mineral Industry Quarterly* Vol. 31, No. 1 and Vol. 34, No. 2.

Petroleum

At the end of 1983 there were 32 fields producing stabilised crude oil. In 1983, production of crude oil rose by 12.6 per cent, the greatest level since 1979, and the production of natural gas rose by 2.8 per cent.

Total refinery input declined by 3.9 per cent although the proportion of total input from indigenous sources increased from 62 per cent in 1982 to 73 per cent in 1983. Consumption of automotive gasoline (motor spirit) decreased by 1.1 per cent. Consumption of all other major petroleum products except LPG also fell. The quantity of imported crude oil, enriched crude oil, and other refinery feedstock decreased by 27.1 per cent compared with that in 1982, and its value decreased by 32.6 per cent from $3301 million to $2226 million. Export of all petroleum products rose by 45.3 per cent in value to $1605 million. In November 1983 the first export shipment of crude oil took place.

Exploration wells drilled decreased from 221 in 1982 to 202 (153 onshore, 49 offshore) in 1983, and total metres drilled for exploration decreased from 452,244 m in 1982 to 401,285 m in 1983, a decline of 11.3 per cent. Geophysical exploration also decreased during 1983. Offshore exploration resulted in six oil, four gas and four oil and gas discoveries; on shore exploration produced eleven oil, fifteen gas, and four oil and gas discoveries. Onshore development drilling continued in: Cooper/Eromanga Basins (S.A. and Queensland) (39 wells); Barrow Island (W.A.) (6 wells); Woodada (W.A.) and Rolleston (Queensland) fields (one well each field). In the offshore, except for one well in the North Rankin Gasfield, all development drilling was restricted to the Gippsland Basin in the Snapper, West Kingfish, Cobia and Fortescue Fields.

Ten new development projects were completed in 1983. The Jackson/Moonie (Queensland) liquids pipeline was laid and field facilities were installed at the Jackson Field. In South Australia the first delivery of liquid hydrocarbons from the Cooper liquids pipeline was shipped from Port Bonython. Also in South Australia, Toolachee, Strzelecki, Della and Daralingie Fields were connected to the main Moomba plant, and the Moomba crude stabilisation plant came on-stream. Production of crude oil from the Blina Field (W.A.) and gas production from Palm Valley (N.T.) commenced during the year.

Recoverable resources (demonstrated economic plus sub-economic) of crude oil increased by 5.62 gigalitres to 288.00 gigalitres and recoverable resources of natural gas increased by 63.6 per cent from 905.80 billion $(10^9)m^3$ to 1482 billion m^3. Expenditure on petroleum exploration decreased 24 per cent to $731.5 million in 1983.

Nickel

A summary of the growth of the Australian nickel industry was published in the *Australian Mineral Industry Quarterly,* Vol. 28 No. 4.

Mine production of nickel in ore and concentrates was 79,071 tonnes in 1983. Australia was the third largest world producer after USSR and Canada. Concentrates from Kambalda, Agnew and Mount Windarra are smelted at the Kalgoorlie nickel smelter. Some of the matte produced is railed to the Kwinana nickel refinery to be refined to nickel metal and the remainder is exported. Nickel-laterite ore mined at Greenvale, Queensland, is treated at the Yabulu nickel treatment plant to produce nickel oxide sinter for export.

Mineral sands

The history of the mineral sands industry is presented in the *Australian Mineral Industry Quarterly,* Vol. 25, No. 1.

Australia is still the world's largest producer and exporter of natural rutile, ilmenite, zircon and monazite. Output of rutile, ilmenite and zircon concentrates all fell during 1983 but the production of monazite increased.

Diamonds

Commercial production of diamonds from the alluvial deposits in the Upper Smoke creek and Limestone Creek alluvials and from the scree deposits overlying the Ak-1 Kimberlite pipe at Argyle commenced in January 1983. Production for the year was 6.2 million carats from 1.07 million tonnes of ore. The diamonds comprise approximately 10 per cent gem, 50 per cent cheap gem, and 40 per cent industrial quality. Production from the AK-1 pipe is planned to start in 1985.

Uranium

Preliminary estimates of production of uranium in Australia in 1983 amounted to 3,786 tonnes of yellowcake (4,422 tonnes contained μ), 27.4 per cent greater than in 1982. Exports for 1983 were 3,273 tonnes of yellowcake (preliminary estimates only).

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CHAPTER 17

MANUFACTURING AND INTERNAL TRADE

MANUFACTURING

Introduction

An historical summary of the development of the manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book.

Decentralisation and manufacturing industries

The decentralisation of secondary industries, and the steps taken by the Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book.

Bounties on manufacture

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable, and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (*See* Chapter 22, Public Finance, for products on which bounties are paid.)

Government authorities

Industries Assistance Commission

The Industries Assistance Commission is a statutory authority which came into existence on 1 January 1974 as a result of passing of the *Industries Assistance Commission Act* 1973 by the Commonwealth Parliament. The Commission replaced the Tariff Board, which since 1921 had been responsible for advising the Government on assistance for industries mainly in the secondary sector of the economy.

The Commission is an advisory authority. The Government is required to seek the Commission's advice before it makes changes in the assistance afforded industries, but the Government is not obliged to accept the Commission's advice.

In August 1983, the Government initiated an independent review by Mr John Uhrig of the functions and operations of the Commission. Decisions taken on the recommendations of that review and reflected in the *Industries Assistance Commission Amendment Act 1984* were designed to improve the Commission's operations and procedures so that it could more effectively assist the Government to meet its industry policy objectives.

The Commission's basic functions remain unchanged. These are to hold inquiries, conduct public hearings and to make reports to the Government on assistance, and matters associated with assistance, to industries in the primary, secondary and tertiary sectors of the economy. Inquiries are initiated by references from the Minister administering the *Industries Assistance Commission Act 1983*. The Commission is also required to report annually to the Government on its operations and on the general structure of industry assistance within Australia and its effects on the economy.

The new legislation involved changes to the policy guidelines under which the Commission operates. For normal inquiries, these are now cast in terms of encouraging the growth of efficient and internationally competitive industries, facilitating structural adjustment and recognising the interests of other industries and consumers.

The Commission is required to give wide public notice that it is conducting an inquiry. Under the new arrangements, a draft report is prepared on the basis of consultation with interested parties, written submissions and the Commission's own investigatory work. Draft reports are published and public hearings are held to give interested parties an opportunity to examine and comment before Commission reports are finally settled. Public hearings are conducted in an informal manner and may be held in Canberra or in other cities throughout Australia.

It is the Government's intention that, in most cases, final Commission reports will be published prior to a Government decision being taken. When released for publication, these Commission reports are sold by Australian Government Publishing Service Bookshops.

If after receiving a report from the Commission, the Government decides that assistance afforded a particular industry should be changed, it introduces a proposal to this effect in Parliament. Thus the final responsibility for altering assistance given to particular industries within Australia rests with Parliament.

The *Industries Assistance Commission Amendment Act 1984* abolished the Temporary Assistance Authority. Henceforth, the Commission is to be responsible for conducting all temporary assistance inquiries which are concerned with the question of whether urgent action is necessary to provide assistance to any industry experiencing difficulties. A separate set of guidelines are to apply to such inquiries and the Commission must hold a public hearing and submit its report within 45 days of receipt of a temporary assistance reference.

Bureau of Industry Economics

The Bureau of Industry Economics has been established by the Australian Government as a centre for research into the manufacturing and commerce sectors. Formally attached to the Department of Industry and Commerce, it has professional independence in the conduct and reporting of its research.

The major objectives of the Bureau are to:

- carry out research work needed to assist the Government in the formation of industrial policy
- assist the Industries Assistance Commission and other government bodies by making submissions on the results of its research
- attract a high standard of professional staff and publish its research findings
- complement the work of other research agencies and co-operate with universities and colleges in developing research programs.

Activities coming within the Bureau's research area include manufacturing, wholesale and retail trade and personal and business services. These currently contribute well over 50 per cent of gross domestic product in Australia and absorb an even larger share of the labour force.

The Bureau is also concerned with developments in mining, rural industry, public and private services and international trade and investment where these impinge on the manufacturing and commerce sectors.

A Council of Advice advises the Minister of Industry and Commerce about the Bureau's work and ensures that it is relevant to contemporary and long term issues in manufacturing and commerce. Its members are drawn from a wide range of industries and backgrounds, including the universities and the trade union movement. The Council assists with the work of the Bureau and the effective dissemination of the results of the Bureau's work.

As well as conducting longer-term research, the Bureau provides the Minister for Industry and Commerce with regular briefings on economic trends. It also undertakes short-term projects of immediate relevance. The techniques of economic analysis used include supply and demand estimation, industry structure-performance relationships, input-output analysis, econometrics, cost-benefit methods and socio-demographic investigations. Technical and social factors affecting industry structure and performance are also taken into account in investigations.

The staff of the Bureau consists of approximately 60 officers with backgrounds in business, government and university teaching and research.

Research projects often require special surveys where existing data sources are inadequate or more detailed information is required for particular industries. In certain projects the Bureau undertakes joint research with other organisations and consultants are engaged where this will significantly enhance the quality of the research.

Current research areas include:

- the aerospace industry
- the chemicals industry
- corporate taxation
- small business
- productivity
- industrial development policies
- structural adjustment in heavy engineering
- investment behaviour in manufacturing
- trade relations with north-east Asia.

The results of the Bureau's research are published in working papers, which generally address more technical issues or present preliminary results; information bulletins which contain statistics and other information and research reports which give comprehensive results of the Bureau's major projects. In addition the Bureau publishes conference proceedings, contributed papers from people outside the Bureau and submissions to other Government organisations.

Standardisation

The *Commonwealth Scientific and Industrial Research Organization* (CSIRO) is obliged by two Acts of Parliament to be associated with national standards. The functions of CSIRO as laid down by these Acts involve establishing, developing and maintaining standards of measurement of physical quantities and to promote the use of these standards.

CSIRO first undertook this role in 1938 after government acceptance of a recommendation by a Secondary Industries Testing and Research Committee that these functions were essential for the successful development of manufacturing industry in Australia. Since that time, standards and calibrations have been established for a very wide range of physical quantities, extending considerably beyond the minimum required by law. From 1978, CSIRO has been responsible for first level calibrations in the defence area.

In certain specialist areas, CSIRO has authorised other bodies to carry out functions related to standards. CSIRO has authorised the *Australian Atomic Energy Commission* (Department of Resources and Energy) and the *Australian Radiation Laboratory* (Department of Health) to maintain standards for quantities relating to ionising radiations, such as radioactivity, exposure, and absorbed dose. It has also authorised the *Division of National Mapping* (Department of Resources and Energy) and the *Australian Telecommunications Commission* (Department of Communications) to maintain working standards of time interval and frequency.

At the international level, a treaty now widely known as the Metric Treaty has been signed by 45 member nations, including Australia. The *International Bureau of Weights and Measures* (BIPM) coordinates activities under the Treaty by providing a mechanism for making international agreements in scientific metrology and for coordinating research on basic scientific problems in measurement. The CSIRO has representatives on five of the BIPM's Consultative Committees, while the *Australian Radiation Laboratory* and the *Australian Atomic Energy Commission* (as CSIRO agents) are represented on another Consultative Committee.

The *Standards Association of Australia* is the organisation responsible for the preparation, on a national basis, of Australian standards for materials and products and standard codes of practice.

Formed as the Australian Commonwealth Engineering Standards Association in 1922, it was reconstituted as the Standards Association of Australia in 1929, and was incorporated by Royal Charter in 1950. It is an independent body having the full recognition and support of the Commonwealth and State Governments and of industry. Approximately half its funds are provided by Commonwealth Government grant, the remainder coming primarily from membership subscriptions and from the sale of publications. Organisations, companies, and individuals are eligible for subscribing membership.

The Association is controlled by a Council comprising representatives from Commonwealth and State Governments and their departments, from associations of manufacturing and commercial interests, and from professional institutions. Standards are prepared by committees composed of expert representatives from the interests associated with the subject under consideration. This assistance is on a voluntary basis.

Preparation of a standard is undertaken in response to a request from any responsible source, subject to verification that the standard will meet a genuine need. Standards may relate to one or more of several aspects of industrial practice such as terminology, test methods, dimensions, specifications of performance and quality of products, and safety or design codes. In general, standards derive authority from voluntary adoption based on their intrinsic merit, but in many cases where safety of life or property or consumer protection is involved, they may have compulsory application through statutory reference.

The Association is the owner of a registered certification trade mark covering conformity of products to standards. Manufacturers of products covered by Australian standards may obtain a licence to use the Australian Standard Mark, under conditions established by the Association.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electrotechnical Commission (IEC). Close links are maintained with overseas standards organisations, and the Association acts as Australian agent for the procurement of ISO and IEC publications and the standards of other countries.

The Association has two specialised libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organisations. These libraries provide necessary material for committee work and a free information service to those concerned with standards.

The headquarters office of the Association is in Sydney, and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

The *National Standards Commission* was established in 1948 and is presently located at North Ryde, Sydney. The original purpose was to advise the Minister for Science and Technology on matters relating to weights and measures. It operated under the *Weights and Measures (National Standards) Act*, 1948. This was replaced in 1960 with a new Act which took account of advances in measuring technology and its impact in Australia. Amendments to the 1960 Act were made in 1966, 1978 and 1984. The present role of the Commission provides for the establishment and use throughout Australia of uniform units and standards of measurement, physical quantities, the progressive introduction of the metric system as the sole system of measurement of physical quantities in Australia and for the examination and approval of the patterns of measuring instruments used for trade in order to control design and quality. The 1984 amendments also changed the title of the Act to the National Measurement Act.

The Commission has close contacts with all States and Territorial weights and measures authorities who ensure by regular inspections that trade instruments continue to comply with the approved patterns.

Close liaison is also maintained with the manufacturing industry, retailers, consumers and other users to ensure a balance between design, quality and cost.

The Commission has regular contacts overseas and provides the Australian member accredited to the International Organisation of Legal Metrology. The Commission is directed by a board of seven part-time Commissioners.

The *National Association of Testing Authorities* (NATA) organises testing facilities throughout Australia to serve private and governmental needs. Membership is open to authorities whose testing laboratories conform to the standards of staffing and operations defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of acoustic and vibration measurement, biological testing, chemical testing, electrical testing, heat and temperature measurement, mechanical testing, medical testing, metrology, non-destructive testing and optics and photometry.

The *Industrial Design Council of Australia* (IDCA) is engaged in activities aimed at encouraging better design in Australian-made goods and fostering a wider appreciation of good design throughout the community. The Council is representative of industry, commerce and government, together with designers and educationists. It is financed by donations from industry and commerce, and by Commonwealth and State Government grants.

The Council's Field Advisory Service has a diagnostic and counselling role, assisting smaller manufacturers throughout Australia with product development policy and direction. Field advisers are based in IDCA State offices in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart.

The Australian Design Award is granted for high-quality products of Australian design and manufacture. An index of these products is held in each State office. These products are also displayed in Australian Design Centres.

Regular contact is maintained with senior executives of manufacturing companies, departmental officers and designers through the Design Delegate program of lectures. Inquirers seeking professional design services are referred to qualified industrial designers. The Council is also concerned with raising the standard of training in industrial design in co-operation with education authorities.

The Council's National Secretariat is in Melbourne.

The *Australian Standard Commodity Classification* (ASCC) has been developed by the ABS to enable users to compare statistics of commodities produced in Australia with statistics of commodities imported and exported.

The ASCC manual (1207.0 and 1208.0) links production, import and export items at their most detailed level of comparability in the form of standard (ASCC) commodity items. In a large number of cases, however, due to the differences between production, import and export items, comparability is only achieved at fairly broad aggregate levels. In the ASCC, commodities are grouped under industries (as defined in the Australian Standard Industrial Classification (ASIC)) in which they are typically produced.

The first edition of the ASCC was restricted to commodities originating in manufacturing industries. The second edition, which relates to the year 1977–78 was extended to also include commodities originating in the agriculture, forestry, fishing, hunting and mining industries. The latest edition published is in respect of the year 1980–81 which was released in April 1983. Because of the relatively few changes that occurred in the component items of the ASCC, it was decided not to publish the 1979–80 edition of the ASCC manual.

The classification will continue to be developed over the coming years to improve the alignment between production, imports and exports.

The *Australian Standard Industrial Classification* (ASIC) (1201.0 and 1202.0) was developed by the ABS as part of its program for the integration of economic statistics. Since its introduction by the ABS in the processing of the 1969 Integrated Economic Censuses, the ASIC has gained a wide acceptance by users of statistics outside the ABS and has been progressively applied in most ABS collections and compilations where data are classified by industry.

The ASIC has been devised for the purpose of classifying statistical units by industry. It has been designed primarily as a system for the classification of establishments (e.g. individual mines, factories, shops, etc.) although it may also be used for classifying other economic units such as enterprises.

The fundamental concept of this classification system is that an industry (i.e. an individual class, group, etc.) in the ASIC is composed of establishments that have been classified to it. Each industry class is defined in terms of the predominant activities of the establishment classified to it and these activities are specified in the ASIC as *primary activities* of the individual industry classes. These industry definitions are revised only at relatively infrequent intervals so as to minimise the disruption to time series data assembled on an ASIC basis.

As a result of a recent comprehensive review of the classification, the 1978 Edition of ASIC has been published. This revised edition is being progressively introduced in all relevant ABS collections.

Productivity action

For information about the Productivity Group Movement and Productivity Promotion Council of Australia *see* Chapter 25, Science and Technology.

Manufacturing industry statistics

Manufacturing industry statistics from 1901 to 1967–68

A series of substantially uniform statistics exist from 1901 up until 1967–68 when the framework within which manufacturing statistics were collected was changed. Detailed manufacturing statistics in respect of this period are included in Year Book No. 57, pages 721–9, and in earlier issues.

Manufacturing industry statistics from 1968–69

As from the year ended June 1969, the Censuses of Manufacturing, Electricity and Gas have been conducted within the framework of the integrated economic censuses which include the Censuses of Mining, Retail Trade, Wholesale Trade, Construction and Electricity and Gas industries. As a result, manufacturing industry statistics for 1968–69 and subsequent years are not directly comparable with previous years.

The standardisation of census units in the integration of economic censuses means that the basic census unit (the establishment), in general, now covers all the operations carried on under the one ownership at a single physical location. The manufacturing establishment is thus one predominantly engaged in manufacturing, but the data supplied for it now cover (with a few exceptions) all activities at the location. The establishment statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business (enterprise) which owns and operates the establishment.

Census units are classified to industry according to the Australian Standard Industrial Classification (ASIC), described in the ABS publication *Australian Standard Industrial Classification* (1201.0 and 1202.0). The ASIC defines the industries in the economy for statistical purposes, thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them. It also sets out standard rules for identifying the statistical units (e.g. establishments) and for coding them to the industries of the classification. This classification is broadly convertible to the International Standard Industrial Classification adopted by the United Nations Statistical Commission. The adoption of the ASIC has resulted in changes in scope between the integrated economic censuses introduced in 1968–69 and the individual economic censuses conducted in previous years.

In the 1967–68 census there were approximately 62,600 manufacturing establishments (excluding electricity and gas establishments) with employment of 1,276,000. Of these, approximately 35,400, with employment of 1,097,000 would have been included in the 1967–68 census if ASIC had been used.

MANUFACTURING ESTABLISHMENTS: SUMMARY OF OPERATIONS, AUSTRALIA, 1968–69 to 1982–83

Census year	Establishments at 30 June	Average employment over whole year (a)			Wages and salaries (b)	Turnover	Stocks		Purchases, transfers in and selected expenses	Value added	Fixed capital expenditure less disposals
		Males	Females	Persons			Opening	Closing			
	No.	No.	No.	No.	$m	$m	$m	$m	$m	$m	$m
1968-69 . . .	35,939	927,211	334,066	1,261,277	3,908.1	18,646.5	3,102.5	3,319.6	11,514.9	7,348.8	903.0
1969-70 . . .	35,674	950,055	345,578	1,295,633	4,328.7	20,687.6	3,322.8	3,634.7	12,862.3	8,137.1	1,030.7
1970-71 . . .	No manufacturing census was conducted in respect of this year.										
1971-72 . . .	36,206	953,967	347,672	1,301,639	5,250.0	23,620.4	3,920.1	4,182.5	14,374.8	9,508.1	1,297.8
1972-73 . . .	36,437	951,610	345,485	1,297,095	5,820.0	26,352.4	4,187.2	4,306.3	15,963.0	10,508.5	1,244.4
1973-74 . . .	37,143	969,338	369,041	1,338,379	7,176.4	31,246.7	4,299.1	5,268.5	19,329.8	12,886.3	1,215.5
1974-75(*c*) . .	36,836	931,367	333,440	1,264,807	8,588.0	35,468.0	5,267.2	6,572.2	21,712.3	15,060.7	1,456.4
1974-75(*d*) . .	26,973	916,896	328,341	1,245,237	8,533.5	35,133.7	5,241.0	6,542.7	21,522.3	14,913.1	1,445.9
1975-76 . . .	27,507	888,523	311,917	1,200,440	9,472.4	39,485.3	6,581.1	7,023.3	23,371.7	16,555.8	1,451.7
1976-77 . . .	26,780	876,111	299,720	1,175,831	10,535.8	44,814.3	6,985.1	7,996.8	27,010.0	18,816.1	1,548.0
1977-78(*e*) . .	25,998	855,448	290,237	1,145,685	11,151.4	48,210.8	7,880.2	8,510.8	29,087.8	19,753.6	1,871.8
1977-78(*f*) . .	26,065	853,966	290,233	1,144,199	11,135.8	48,112.6	7,863.5	8,498.1	28,992.7	19,754.4	1,877.3
1978-79 . . .	26,312	852,982	290,909	1,143,891	11,966.4	55,211.3	8,515.4	9,299.6	33,765.4	22,230.1	2,262.8
1979-80 . . .	27,430	862,368	291,816	1,154,184	13,357.5	65,354.8	9,287.6	11,126.4	41,579.5	25,614.0	2,186.7
1980-81 . . .	27,681	859,217	290,746	1,149,963	14,912.7	73,723.0	11,047.1	12,366.9	46,448.7	28,594.1	2,882.7
1981-82 . . .	28,706	862,542	292,266	1,154,808	17,002.8	81,869.3	12,377.4	13,297.3	51,240.4	31,548.7	4,084.2
1982-83 . . .	27,696	787,309	265,596	1,052,905	17,403.0	82,321.0	13,094.0	13,059.0	51,226.0	31,059.0	3,678.0

(*a*) Including working proprietors. (*b*) Excluding the drawings of working proprietors. (*c*) These data and that of previous years includes the data of all manufacturing establishments. (*d*) These data and those of following years exclude single establishment manufacturing enterprises with fewer than four persons employed. (*e*) These data and those of previous years are classified to the 1969 (preliminary) edition of ASIC. (*f*) These data and those of following years are classified to the 1978 edition of ASIC.

The items of data on the census forms were standardised for all census sectors, which has meant changes in the content of the statistics. For example, the value of 'turnover' is now collected instead of the 'value of output' at the factory, and purchases and selected expenses are collected as well as the value of specified materials, fuels, etc., used. However the underlying concept of 'value added', is similar to the former concept 'value of production', even though its method of derivation is different.

Even though the concept of 'value added' is similar to 'value of production', direct comparison of 1968–69 and previous figures is not possible because of the change in census units already mentioned which has resulted in the 'value added' for the whole establishment being reported, not merely the 'value added' for the manufacturing process. Comparison is also affected, of course, by the change in the scope of the manufacturing census due to the adoption of ASIC. In addition, 'value added' as calculated for the Manufacturing Census differs from the concept used in the National Accounts where the concept of 'value added' also excludes some administrative expenses and sundry charges and the change in stocks component is measured by valuing the physical change in stocks at current prices. It is not practicable in the Manufacturing Census to collect data fully in accord with the National Accounts concept of 'value added'.

For a more detailed description of the Integrated Economic Censuses reference should be made to Year Book No. 56, Chapter 31.

Since the introduction of the system of integrated economic censuses the comparability of manufacturing census data has been affected by two additional changes to collection practices:

(i) Commencing with the 1975–76 Manufacturing Census, only a limited range of data (i.e. employment and wages and salaries) is collected from single establishment manufacturing enterprises with less than four persons employed. This procedure significantly reduced both the statistical reporting obligations of small businesses and the collecting and processing costs of the Australian Bureau of Statistics without affecting the reliability of information for the evaluation of trends in the manufacturing sector of the economy (as these small enterprises contribute only marginally to statistical aggregates). In order to provide a link with past and future years, 1974–75 data was processed on both bases.

(ii) Commencing with the 1977–78 census the classification of census units to industry is based on the 1978 edition of the ASIC which replaces the 1969 preliminary edition in use since the 1968–69 census. In general the impact of the change in industrial classification is minimal at the ASIC Division and Subdivision levels.

Multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed

Main structural aggregates relating to number of establishments, employment, wages and salaries, turnover, purchases, transfers in and selected expenses, stocks, and value added are shown in the following tables. Further detailed statistics are contained in the following ABS statistical publications: *Manufacturing Establishments, Details of Operations by Industry Class, Australia* (8203.0), *Manufacturing Establishments, Summary of Operations by Industry Class, Australia* (8202.0) and *Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size, Australia* (8204.0).

Summary of operations

The following table shows the summary of operations for manufacturing establishments.

MANUFACTURING ESTABLISHMENTS—SUMMARY OF OPERATIONS BY INDUSTRY SUB-DIVISION: AUSTRALIA 1981–82 AND 1982–83

Industry sub-division		*Establish-ments operating at 30 June*	*Average employment over whole year (a)*			*Wages and salaries (b)*	*Turn-over*	*Stocks at 30 June*		*Purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expend-iture less disposals*
ASIC code	*Description*	*No.*	*Males No.*	*Females No.*	*Persons No.*	*$m*	*$m*	*Opening $m*	*Closing $m*	*$m*	*$m*	*$m*
	1981-82											
21	Food, beverages and tobacco	3,485	127,921	50,811	178,732	2,606	17,118	1,919	1,947	11,821	5,325	549
23	Textiles	655	20,863	15,082	35,945	500	2,181	374	410	1,361	856	72
24	Clothing and footwear	2,032	18,015	59,492	77,507	849	2,915	460	506	1,580	1,380	34
25	Wood, wood products and furniture	4,184	68,008	12,411	80,419	968	4,102	527	585	2,391	1,770	94
26	Paper, paper products, printing and publishing	2,946	73,071	29,842	102,913	1,591	6,118	697	774	3,228	2,966	293
27	Chemical, petroleum and coal products	942	44,820	15,398	60,218	1,069	7,836	1,256	1,332	5,146	2,767	310
28	Non-metallic mineral products	1,777	40,892	5,073	45,965	769	3,820	438	514	2,211	1,686	179
29	Basic metal products	548	88,779	7,335	96,114	1,784	10,158	2,009	2,073	7,141	3,080	1,687
31	Fabricated metal products	4,509	95,725	20,607	116,332	1,625	6,781	975	1,074	4,021	2,860	167
32	Transport equipment	1,394	115,563	15,904	131,467	1,961	7,631	1,270	1,389	4,585	3,165	329
33	Other machinery and equipment	3,934	124,043	39,028	163,071	2,360	9,199	1,862	2,061	5,318	4,080	246
34	Miscellaneous manufacturing	2,300	44,842	21,283	66,125	922	4,009	590	632	2,437	1,614	125
	Total manufacturing	**28,706**	**862,542**	**292,266**	**1,154,808**	**17,003**	**81,869**	**12,377**	**13,297**	**51,240**	**31,549**	**4,084**
	1982–83											
21	Food, beverages and tobacco	3,424	125,136	49,402	174,538	2,854	18,507	1,905	2,088	12,763	5,927	594
23	Textiles	628	19,192	13,440	32,632	513	2,147	395	375	1,323	805	57
24	Clothing and footwear	1,969	16,692	53,258	69,950	847	2,917	479	465	1,549	1,355	29
25	Wood, wood products and furniture	4,028	60,152	10,879	71,031	950	3,982	585	567	2,291	1,674	92
26	Paper, paper products, printing and publishing	2,909	71,327	29,407	100,734	1,711	6,484	772	742	3,384	3,072	207
27	Chemical, petroleum and coal products	931	43,512	14,808	58,320	1,144	8,124	1,315	1,443	5,418	2,835	328
28	Non-metallic mineral products	1,712	36,439	4,436	40,875	761	3,705	516	573	2,202	1,560	145
29	Basic metal products	548	76,613	6,387	83,000	1,682	9,431	2,068	1,940	6,803	2,500	1,431
31	Fabricated metal products	4,272	84,089	17,690	101,779	1,584	6,424	1,074	957	3,656	2,650	147
32	Transport equipment	1,300	107,099	13,949	121,048	2,140	8,041	1,348	1,413	4,814	3,292	300
33	Other machinery and equipment	3,766	106,757	33,396	140,153	2,309	8,585	2,027	1,895	4,649	3,804	213
34	Miscellaneous manufacturing	2,209	40,301	18,544	58,845	907	3,972	611	600	2,375	1,587	135
	Total manufacturing	**27,696**	**787,309**	**265,596**	**1,052,905**	**17,403**	**82,321**	**13,094**	**13,059**	**51,226**	**31,059**	**3,678**

(*a*) Includes working proprietors. (*b*) Excludes the drawings of working proprietors.

Employment

The statistics on the number of persons employed shown in the following table relate to the average whole year employment, including working proprietors and those persons working at separately located administrative offices and ancillary units in the State.

It should be noted that persons employed in each State (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in that State, even though the administrative offices or ancillary units may have served establishments located in another State.

MANUFACTURING ESTABLISHMENTS—MALES, FEMALES AND PERSONS EMPLOYED BY INDUSTRY SUB-DIVISION, 1982–83, AND TOTAL MANUFACTURING 1980–81 TO 1982–83

Industry sub-division										
ASIC code	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
	MALES EMPLOYED									
21	Food, beverages and tobacco	38,631	36,831	24,787	11,909	8,216	3,930	521	311	125,136
23	Textiles	5,252	10,588	621	1,507	409	N.P.	—	437	19,192
24	Clothing and footwear	4,347	10,287	559	1,114	271	93	103		16,692
25	Wood, wood products and furniture	20,005	15,178	9,782	5,999	5 922	2 748			60,152
26	Paper, paper products, printing and publishing	24,164	24,191	7,312	5,505	4,672	4,368	199	916	71,327
27	Chemical, petroleum and coal products	19,450	15,629	2,601	2,208	2,776	N.P.	N.P.	—	43,512
28	Non-metallic mineral products	12,926	9,684	5,937	2,878	3,977	717	167	153	36,439
29	Basic metal products	41,691	11,902	6,061	7,645	5,283	N.P.	863	450	76,613
31	Fabricated metal products	30,906	26,277	11,503	5,952	7,586	1,248			84,089
32	Transport equipment	28,930	45,737	11,399	15,831	4,593	540	27	42	107,099
33	Other machinery and equipment	45,129	34,958	8,704	10,511	6,689	613	22	131	106,757
34	Miscellaneous manufacturing	14,514	16,608	3,123	3,784	1,871	346	27	28	40,301
	Total manufacturing									
	1982–83	**285,945**	**257,870**	**92,389**	**74,843**	**52,265**	**19,597**	**1,932**	**2,468**	**787,309**
	1981–82	319,468	278,908	99,429	81,408	57,395	21,345	1,962	2,627	862,542
	1980–81	323,242	277,744	94,319	81,449	55,874	21,942	2,117	2,530	859,217
	FEMALES EMPLOYED									
21	Food, beverages and tobacco	16,277	14,619	7,532	4,909	3,786	1,977	171	131	49,402
23	Textiles	3,893	6,770	485	1,165	279	N.P.	—	76	13,440
24	Clothing and footwear	15,419	30,953	2,626	2,956	1,150	117	39		53,258
25	Wood, wood products and furniture	3,892	2,814	1,738	1,015	1,142	204			10,879
26	Paper, paper products, printing and publishing	11,430	9,568	3,012	2,023	2,186	688	120	380	29,407
27	Chemical, petroleum and coal products	8,868	4,694	439	381	374	N.P.	N.P.	—	14,808
28	Non-metallic mineral products	1,748	1,497	444	281	378	54	20	14	4,436
29	Basic metal products	3,277	1,477	457	591	372	N.P.	134	97	6,387
31	Fabricated metal products	7,046	5,955	2,104	1,214	1,070	175			17,690
32	Transport equipment	2,783	8,646	596	1,552	245	115	6	6	13,949
33	Other machinery and equipment	16,439	10,948	1,491	3,259	1,118	91	7	43	33,396
34	Miscellaneous manufacturing	7,591	7,207	1,333	1,717	615	63	5	13	18,544
	Total manufacturing									
	1982–83	**98,663**	**105,148**	**22,257**	**21,063**	**12,715**	**4,488**	**502**	**760**	**265,596**
	1981–82	112,456	113,829	23,288	23,474	13,404	4,464	527	824	292,266
	1980–81	112,997	113,745	21,796	23,306	12,996	4,586	534	786	290,746
	PERSONS EMPLOYED									
21	Food, beverages and tobacco	54,908	51,450	32,319	16,818	12,002	5,907	692	442	174,538
23	Textiles	9,145	17,358	1,106	2,672	688	N.P.	—	513	32,632
24	Clothing and footwear	19,766	41,240	3,185	4,070	1,421	210	142		69,950
25	Wood, wood products and furniture	23,897	17,992	11,520	7,014	7,064	2,952			71,031
26	Paper, paper products, printing and publishing	35,594	33,759	10,324	7,528	6,858	5,056	319	1,296	100,734
27	Chemical, petroleum and coal products	28,318	20,323	3,040	2,589	3 150	N.P.	N.P.	—	58,320
28	Non-metallic mineral products	14,674	11,181	6,381	3,159	4,355	771	187	167	40,875
29	Basic metal products	44,968	13,379	6,518	8,236	5,655	N.P.	997	547	83,000
31	Fabricated metal products	37,952	32,232	13,607	7,166	8,656	1,423			101,779
32	Transport equipment	31,713	54,383	11,995	17,383	4,838	655	33	48	121,048
33	Other machinery and equipment	61,568	45,906	10,195	13,770	7,807	704	29	174	140,153
34	Miscellaneous manufacturing	22,105	23,815	4,456	5,501	2,486	409	32	41	58,845
	Total manufacturing									
	1982–83	**384,608**	**363,018**	**114,646**	**95,906**	**64,980**	**24,085**	**2,434**	**3,228**	**1,052,905**
	1981–82	431,924	392,737	122,717	104,882	70,799	25,809	2,489	3,451	1,154,808
	1980–81	436,239	391,489	116,115	104,755	68,870	26,528	2,651	3,316	1,149,963

Wages and salaries

The following table shows wages and salaries of all employees of manufacturing establishments including those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

MANUFACTURING ESTABLISHMENTS—WAGES AND SALARIES BY INDUSTRY SUB-DIVISION, 1982–83 AND TOTAL MANUFACTURING 1980–81 TO 1982–83

($ million)

Industry sub-division										
ASIC code	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
21	Food, beverages and tobacco	956	863	520	235	181	80	12	7	2,854
23	Textiles	152	277	14	38	9	N.P.	—	7	513
24	Clothing and footwear	237	509	36	46	15	3	1		847
25	Wood, wood products and furniture	328	241	148	93	88	45			950
26	Paper, paper products, printing and publishing	631	573	162	117	103	95	5	25	1,711
27	Chemical, petroleum and coal products	555	397	58	50	66	N.P.	N.P.	—	1,144
28	Non-metallic mineral products	290	209	113	54	74	14	3	3	761
29	Basic metal products	916	267	130	155	132	N.P.	21	8	1,682
31	Fabricated metal products	611	509	196	103	135	20			1,584
32	Transport equipment	576	968	191	317	75	11	—	1	2,140
33	Other machinery and equipment	1,032	768	157	213	125	11	—	3	2,309
34	Miscellaneous manufacturing	355	368	61	81	35	6	—	—	907
	Total manufacturing									
	1982–83	**6,638**	**5,950**	**1,786**	**1,502**	**1,038**	**388**	**45**	**55**	**17,403**
	1981–82	6,624	5,757	1,700	1,446	1,013	370	42	49	17,003
	1980–81	5,885	5,032	1,410	1,283	869	347	42	45	14,913

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by the establishment or not, transfers out of goods to other establishments of the same enterprise; bounties and subsidies on production; plus all other operating revenue from outside the enterprise, (such as commission, repair and service revenue and rent, leasing and hiring revenue), plus capital work done for own use, or for rental or lease. Receipts from interest, royalties, dividends, and the sale of fixed tangible assets are excluded.

MANUFACTURING ESTABLISHMENTS—TURNOVER, BY INDUSTRY SUB-DIVISION, 1982–83 AND TOTAL MANUFACTURING 1980–81 TO 1982–83

($ million)

Industry sub-division										
ASIC code	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
21	Food, beverages and tobacco	5,572	5,959	3,390	1,563	1,331	592	63	36	18,507
23	Textiles	683	1,087	86	167	37	N.P.	—	31	2,147
24	Clothing and footwear	905	1,717	88	159	39	8	6		2,917
25	Wood, wood products and furniture	1,385	1,014	563	398	350	236			3,982
26	Paper, paper products, printing and publishing	2,439	2,262	583	424	317	379	17	64	6,484
27	Chemical, petroleum and coal products	3,427	2,451	1,414	292	441	N.P.	N.P.	—	8,124
28	Non-metallic mineral products	1,351	884	677	303	356	79	31	25	3,705
29	Basic metal products	3,966	1,721	1,185	688	1,341	N.P.	220	46	9,431
31	Fabricated metal products	2,399	1,953	910	451	574	75			6,424
32	Transport equipment	1,686	4,014	942	1,166	197	32	2	2	8,041
33	Other machinery and equipment	3,756	2,987	582	768	449	30	3	11	8,585
34	Miscellaneous manufacturing	1,455	1,701	296	329	165	24	2	2	3,972
	Total manufacturing									
	1982–83	**29,024**	**27,747**	**10,715**	**6,708**	**5,597**	**1,969**	**344**	**217**	**82,321**
	1981–82	29,545	27,208	10,590	6,652	5,491	1,898	297	188	81,869
	1980–81	26,910	23,856	9,667	6,067	4,902	1,867	292	163	73,723

Purchases, transfers in and selected expenses

The following table gives details of the value of purchases, transfers in and selected expenses. Figures include purchases of materials, fuels, power, containers, etc. and goods for resale, plus transfers in of goods from other establishments of the enterprise, plus charges for commission and sub-contract work, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses, sales commission payments and rent, leasing and hiring expenses.

MANUFACTURING ESTABLISHMENTS—PURCHASES, TRANSFERS IN AND SELECTED EXPENSES, BY INDUSTRY SUB-DIVISION, 1982–83 AND TOTAL MANUFACTURING 1980–81 TO 1982–83[1]

($ million)

Industry sub-division *ASIC code*	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
21	Food, beverages and tobacco	3,705	4,145	2,406	1,037	959	441	45	26	12,763
23	Textiles	414	658	68	109	23	N.P.	—	16	1,323
24	Clothing and footwear	519	894	36	76	18	4	4		1,549
25	Wood, wood products and furniture	793	571	320	245	195	146			2,291
26	Paper, paper products, printing and publishing	1,253	1,213	295	213	159	211	6	32	3,384
27	Chemical, petroleum and coal products	2,050	1,518	1,306	184	301	N.P.	N.P.	—	5,418
28	Non-metallic mineral products	838	470	429	173	205	47	22	17	2,202
29	Basic metal products	2,916	1,258	866	464	925	N.P.	171	27	6,803
31	Fabricated metal products	1,357	1,076	547	266	328	44			3,656
32	Transport equipment	821	2,601	606	672	97	14	1	2	4,814
33	Other machinery and equipment	2,000	1,618	330	418	261	15	2	6	4,649
34	Miscellaneous manufacturing	855	1,037	184	183	103	12	1	1	2,375
	Total manufacturing									
	1982–83	**17,520**	**17,060**	**7,393**	**4,041**	**3,574**	**1,260**	**251**	**126**	**51,226**
	1981-82	17,896	16,904	7,300	4,059	3,501	1,237	231	112	51,240
	1980-81	16,647	14,742	6,722	3,693	3,149	1,176	231	89	46,449

Stocks

Statistics on the value of opening and closing stocks at 30 June are shown in the following table. Figures include all the stocks of materials, fuels, etc., and finished goods and work-in-progress of the establishment whether located at the establishment or elsewhere.

MANUFACTURING ESTABLISHMENTS—OPENING AND CLOSING STOCKS BY INDUSTRY SUB-DIVISION, 1982–83 AND TOTAL MANUFACTURING 1980–81 TO 1982–83

($ million)

Industry sub-division *ASIC code*	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
	OPENING STOCKS AT 30 JUNE									
21	Food, beverages and tobacco	605	646	224	269	93	60	7	—	1,905
23	Textiles	127	204	13	28	6	N.P.	—	3	395
24	Clothing and footwear	139	289	14	31	4	1	1		479
25	Wood, wood products and furniture	199	140	75	55	62	50			585
26	Paper, paper products, printing and publishing	287	291	59	51	30	45	2	6	772
27	Chemical, petroleum and coal products	630	404	153	46	63	N.P.	N.P.	—	1,315
28	Non-metallic mineral products	205	121	81	36	58	12	2	2	516
29	Basic metal products	975	293	249	184	199	N.P.	70	34	2,068
31	Fabricated metal products	400	364	132	57	72	13			1,074
32	Transport equipment	325	674	142	162	28	16	—	—	1,348
33	Other machinery and equipment	856	781	120	164	100	5	—	1	2,027
34	Miscellaneous manufacturing	231	274	35	47	21	3	—	—	611
	Total manufacturing									
	1982–83	**4,978**	**4,480**	**1,297**	**1,129**	**738**	**342**	**83**	**48**	**13,094**
	1981-82	4,854	4,200	1,154	1,101	673	298	83	14	12,377
	1980 81	4,235	3,809	1,007	1,091	563	280	49	13	11,047
	CLOSING STOCKS AT 30 JUNE									
21	Food, beverages and tobacco	643	722	248	290	105	72	7	—	2,088
23	Textiles	120	195	11	28	5	N.P.	—	4	375
24	Clothing and footwear	126	287	13	34	4	1	1		465
25	Wood, wood products and furniture	193	140	74	51	58	46			567
26	Paper, paper products, printing and publishing	265	291	61	48	29	41	2	6	742
27	Chemical, petroleum and coal products	656	425	211	54	77	N.P.	N.P.	—	1,443
28	Non-metallic mineral products	215	132	102	42	64	14	2	2	573
29	Basic metal products	872	275	283	174	191	N.P.	69	38	1,940
31	Fabricated metal products	363	320	111	48	61	12			957
32	Transport equipment	324	665	155	220	32	17	—	—	1,413
33	Other machinery and equipment	792	737	114	136	109	4	—	1	1,895
34	Miscellaneous manufacturing	238	253	38	46	21	3	—	—	600
	Total manufacturing									
	1982–83	**4,807**	**4,442**	**1,420**	**1,171**	**756**	**329**	**81**	**52**	**13,059**
	1981 82	5,051	4,583	1,328	1,154	736	350	78	17	13,297
	1980 81	4,855	4,207	1,111	1,104	686	302	83	17	12,367

Value added

The statistics on 'value added' contained in the following table have been calculated by adding to the value of turnover the increase (or deducting the decrease) in the value of stocks, and deducting the value of purchases, transfers in and selected expenses. A more detailed description of the method of deriving 'value added' is given on page 367.

MANUFACTURING ESTABLISHMENTS—VALUE ADDED, BY INDUSTRY SUB-DIVISION, 1982–83 AND TOTAL MANUFACTURING, 1980–81 TO 1982–83
($ million)

Industry sub-division										
ASIC code	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
21	Food, beverages and tobacco	1,907	1,890	1,009	547	384	163	18	10	5,927
23	Textiles	263	420	16	57	12	N.P.	—	15	805
24	Clothing and footwear	372	821	50	86	21	4	2		1,355
25	Wood, wood products and furniture	586	443	242	149	151	86			1,674
26	Paper, paper products, printing and publishing	1,164	1,048	289	207	156	164	10	33	3,072
27	Chemical, petroleum and coal products	1,403	953	166	116	154	N.P.	N.P.	—	2,835
28	Non-metallic mineral products	523	425	269	136	157	33	9	7	1,560
29	Basic metal products	947	445	352	214	408	N.P.	48	24	2,500
31	Fabricated metal products	1,006	833	342	176	234	30			2,650
32	Transport equipment	864	1,403	348	552	104	19	–	1	3,292
33	Other machinery and equipment	1,692	1,324	246	322	198	15	1	5	3,804
34	Miscellaneous manufacturing	607	643	115	145	63	11	1	1	1,587
	Total manufacturing									
	1982–83	**11,332**	**10,650**	**3,445**	**2,709**	**2,041**	**695**	**91**	**97**	**31,059**
	1981-82	11,846	10,687	3,464	2,646	2,053	713	61	78	31,549
	1980-81	10,882	9,512	3 049	2,387	1,877	713	96	77	28,594

Number of establishments

The following table shows the number of establishments in each State in operation at 30 June for the years indicated. These figures relate to manufacturing establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

MANUFACTURING ESTABLISHMENTS—NUMBER OF ESTABLISHMENTS IN OPERATION AT 30 JUNE 1983 BY INDUSTRY SUB-DIVISION, AND TOTAL MANUFACTURING 1980–81 TO 1982–83

Industry sub-division										
ASIC code	*Description*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
21	Food, beverages and tobacco	1,014	966	566	360	366	118	24	10	3,424
23	Textiles	198	307	43	39	29	11	–	1	628
24	Clothing and footwear	769	943	94	85	66	6	2	4	1,969
25	Wood, wood products and furniture	1,428	1,074	633	297	427	121	14	34	4,028
26	Paper, paper products, printing and publishing	1,248	881	271	196	209	47	16	41	2,909
27	Chemical, petroleum and coal products	426	289	71	48	81	15	1	–	931
28	Non-metallic mineral products	569	392	334	129	212	44	18	14	1,712
29	Basic metal products	205	191	59	36	39	11	5	2	548
31	Fabricated metal products	1,727	1,086	590	327	431	75	20	16	4,272
32	Transport equipment	422	374	208	114	156	18	3	5	1,300
33	Other machinery and equipment	1,603	1,159	335	296	316	35	7	15	3,766
34	Miscellaneous manufacturing	862	730	236	172	167	27	7	8	2,209
	Total manufacturing									
	1982–83	**10,471**	**8,392**	**3,440**	**2,099**	**2,499**	**528**	**117**	**150**	**27,696**
	1981 82	10,625	8,916	3,555	2,220	2,603	555	106	126	28,706
	1980-81	10,334	8,726	3,291	2,131	2,426	558	98	117	27,681

Single establishment manufacturing enterprises with less than four persons employed

Summary of operations

The following table shows the summary of operations for single establishment manufacturing enterprises with less than four persons employed.

SINGLE ESTABLISHMENT MANUFACTURING ENTERPRISES WITH LESS THAN FOUR PERSONS EMPLOYED: SUMMARY OF OPERATIONS, BY INDUSTRY SUB-DIVISION, AUSTRALIA, 1982–83 AND TOTAL MANUFACTURING 1980–81 TO 1982–83

Industry sub-division		*Establishments operating at 30 June*	*Employment at 30 June (a)*			*Wages and salaries (b)*
ASIC code	*Description*		*Males*	*Females*	*Persons*	
			—No.—			$m
21	Food, beverages and tobacco	850	1,298	665	1,963	8.5
23	Textiles	253	333	191	524	2.6
24	Clothing and footwear	621	510	739	1,249	6.1
25	Wood, wood products and furniture	3,443	5,434	1,349	6,783	29.5
26	Paper, paper products, printing and publishing	1,431	1,938	1,063	3,001	18.3
27	Chemical, petroleum and coal products	251	364	152	516	3.5
28	Non-metallic mineral products	548	889	271	1,160	6.3
29	Basic metal products	141	240	45	285	1.9
31	Fabricated metal products	2,554	4,027	1,130	5,157	30.2
32	Transport equipment	774	1,278	290	1,568	8.7
33	Other machinery and equipment	1,969	2,941	1,027	3,968	27.6
34	Miscellaneous manufacturing	1,752	2,462	999	3,461	16.3
	Total manufacturing . . . 1982–83	**14,587**	**21,714**	**7,921**	**29,635**	**159.5**
	1981–82	14,022	20,952	7,727	28,679	137.3
	1980–81	12,275	18,405	6,516	24,921	98.6

(*a*) Includes working proprietors. (*b*) Excludes the drawings of working proprietors.

Principal manufacturing commodities

The factory production of certain commodities is shown in the monthly publications of the ABS, and in the annual publication, *Manufacturing Commodities, Selected Principal Articles Produced, Australia (Preliminary)* (8365.0). A more comprehensive list of articles produced is contained in the annual publication, *Manufacturing Commodities, Principal Articles Produced, Australia* (8303.0).

The table on the following page shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list is published in the ABS publication 8303.0 mentioned above.

The automated screening of dyes and colour build up, in the pattern printing process, at a textile mill in Sydney.
Australian Information Service

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA

Commodity code	*Article*	*Unit of quantity*	*1980–81*	*1981–82*	*1982–83p*
	Acid (in terms of 100%)—				
401.29	Hydrochloric	tonnes	59,909	54,554	60,959
401.37	Nitric	"	168,868	193,337	190,048
401.57	Sulphuric	'000 tonnes	1,976	2,039	1,734
171.03, 04, 07, 08	Aerated and carbonated waters	'000 litres	1,031,259	1,007,288	1,009,457
	Air-conditioning equipment—				
657.03, 05	Room air conditioners (refrigerated)	No.	58,428	n.p.	34,567
657.13, 15	Room air coolers (evaporative coolers)	"	117,623	n.p.	151,404
657.21, 22, 23	Packaged unit air conditioners	"	30,629	n.p.	21,789
	Animal feeds—				
	From wheat—				
152.06	Pollard	'000 tonnes	230	229	206
159.11	Poultry pellets and crumbles	"	1,425	1,346	1,410
159.15	Poultry mash	"	149	187	176
159.01	Canned dog and cat foods	'000 kg	194,602	174,079	189,975
159.02	Dog biscuits (whole)	"	5,649	11,773	39,991
159.03	Other manufactured dog and cat food	"	108,892	104,611	84,698
	Audio cassettes—				
647.98	Pre-recorded	'000	13,899	17,622	14,904
647.99	Blank	"	n.a.	2,135	1,921
	Bags, leather, fibre, etc.—				
	Handbags—				
864.31	Leather	"	295	325	210
864.33	Plastic	"	257	269	n.p.
864.39	Other	"	483	483	n.p.
864.11–19	Suitcases, kitbags and trunks	'000	684	385	n.p.
	Bath heaters—				
654.31	Electric	No.	4,303	4,137	2,654
779.02–37	Bathing suits(*a*)	'000 doz	n.p.	528	383
	Baths (exclude infants' baths)—				
671.03	Pressed steel—Enamelled	'000	157	142	n.p.
671.01, 04, 08	Other (exclude pressed steel, galvanised)	"	32	37	n.p.
	Batteries, wet cell type—				
685.13, 15	Auto (S.L.I.) 6 volts	"	231	202	155
685.17, 19	Auto (S.L.I.) 12 volts	"	2,479	2,559	2,400
685.33, 35	Radio, homelighter, fencer	No. of 2 volt cells	11,072	19,930	n.y.a.
685.43–65	Traction, plant and other	"	170,138	197,365	204,563
172.02, 04, 06	Beer (excluding waste beer)	mil. litres	1,987	1,968	1,972
064.21	Biscuits	'000 kg	129,748	131,628	129,119
372.52–66, 374.51–57	Blankets, Woollen—Pure and Mixtures	'000	857	961	n.y.a.
152.02	Bran (wheaten)	'000 tonnes	95	90	93
172.21	Brandy	'000 litre al	2,410	2,858	1,799
777.41, 49	Brassieres	'000 doz	681	654	603
066.01, 05	Breakfast food, cereal (ready to eat)	tonnes	81,504	85,992	80,301
472.01, 03	Bricks, clay	million	2,287	2,234	1,694
261.41	Briquettes, brown coal	'000 tonnes	1,081	993	760
051.30, 052.20	Butter—from cream (exclude whey cream)	'000 kg	84,077	74,983	75,777
773.51, 53, 74, 75, 83	**Cardigans**, jumpers, etc.	'000 doz	1,908	1,765	1,755
474.02	Cement, Portland	'000 tonnes	5,656	6,136	5,350
053.45	Cheese (non-processed)	'000kg	136,744	153,210	142,917
	Cloth (including mixtures)—				
373.10–52	Cotton(*b*)	'000m²	42,761	39,123	n.y.a.
	Rayon and acetate—				
374.02, 06, 14	Pure	"	12,237	n.p.	n.y.a.
374.20–35	Synthetic (non-cellulosic)	"	124,509	122,807	n.y.a.
372.02–50	Wool (excluding blanketing and rug)	"	10,351	8,488	n.y.a.
435.22	Coke—Metallurgical	'000 tonnes	4,690	n.p.	n.p.
475.90	Concrete, ready mixed	'000m³	12,273	13,596	11,373
	Confectionery—				
104.02–18	Chocolate	'000 kg	58,019	65,331	83,178
104.21–29	Other	"	56,324	60,071	57,489
452.04	Copper, refined(*c*)	'000 tonnes	159	163	172

(*a*) Includes swim shorts. Excludes infants' and babies' swim-wear. (*b*) Excludes tyre-cord fabric and towelling. (*c*) Primary origin only.

Source Bureau of Mineral Resources.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*	*Unit of quantity*	*1980–81*	*1981–82*	*1982–83p*
171.06, 10	Cordials and syrups	'000 litres	121,993	130,859	140,835
777.01–29	Corsets and corselets	doz	133,605	146,367	129,858
804.01	**Dentifrices** (toothpaste)	'000 kg	6,700	7,080	6,313
499.42	**Electricity**	mil. kWh	100,782	104,975	105,933
523.76–78	Electrodes for manual welding	'000 kg	21,432	23,464	20,800
502.22–39	Engines, spark and compression ignition(*a*)	'000	n.p.	n.p.	n.p.
	Essences, flavouring—				
139.31	Domestic	'000 litres	655	628	763
139.35	Industrial	"	6,987	6,525	7,199
696.01, 03, 05	**Fans**, electric (propellor type)	No.	658,717	598,217	606,114
	Floorboards—				
332.06	Australian timber	m³	181,627	202,506	136,740
332.08	Imported timber	"	1,698	2,277	n.p.
	Floor coverings—(*b*)				
	Tufted carpets, floor rugs, mats and matting of or predominantly of—				
386.63,68	Man-made fibres	'000 m²	..	..	19,746
386.71,73	Wool or fine animal hair	"	..	..	9,799
692.21, 23	Floor polishers, electric	No.	6,989	n.p.	11,038
	Flour—				
068.01	Self-raising	'000 kg	25,587	17,601	25,461
062.01, 32	Wheaten(*c*)	'000 tonnes	1,110	1,125	1,098
	Fruit juices, natural—				
074.61–69, 79	Single strength	'000 litres	232,612	186,511	201,110
074.76, 89	Concentrated(*d*)	"	30,272	25,002	33,009
781.06–29	**Gloves**, work(*e*)	'000 doz pairs	3,254	n.p.	2,338
127.21	Glucose	'000 kg	50,738	52,052	44,777
832.57	Golf clubs	doz	35,383	28,469	21,454
	Heaters, room—				
651.01, 03	Solid fuel	No.	n.p.	n.p.	10,722
651.11–20	Electric radiators and fires	'000	694	605	572
651.15	Gas fires and space heaters	No.	n.p.	53,156	60,751
775, 776	Hosiery—				
	Women's (including panty hose)	'000 doz pairs	7,585	6,734	8,031
	Men's	"	2,252	2,128	2,149
	Children's and infants'	"	1,237	1,333	1,099
051.56, 58, 59	**Ice cream**(*f*)	'000 litres	213,879	213,971	208,714
051.87, 89, 90	Infants', invalids' and health beverages from cows milk(*g*)	'000 kg	28,681	29,775	28,291
	Iron and steel—				
442.04, 08	Pig iron	'000 tonnes	7,335	6,606	4,990
442.80–85	Steel ingots (including continuous cast billets)	"	7,012	7,260	5,392
442.28	Blooms and slabs(*h*)	"	6,179	5,438	3,750
076.60	**Jams** (including conserves, jellies, etc.)	'000 kg	27,538	32,070	50,770
391.04	**Lard**	"	3,196	3,028	2,109
	Lawn mowers—				
699.51	Petrol, rotary	No.	312,107	311,508	250,941
699.41, 45, 55, 61	Other types(*i*)	"	n.p.	n.p.	n.p.
453.04	Lead refined(*j*)	'000 tonnes	206	207	212
	Leather—				
	Dressed or finished—				
301.43–65	Chrome tanned (including retanned)	'000 m²	4,377	3,673	3,390
301.31–37, 83–89	Vegetable tanned, by weight	'000 kg	1,462	n.p.	n.p.
301.67, 69	Vegetable tanned, by measurement	'000 m²	n.p.	n.p.	n.p.
	Lime—				
275.43, 45	Crushed	tonnes	331,761	n.p.	341,367
479.18	Hydrated	'000 tonnes	153	167	175
479.12	Quick	"	390	446	500
802.21	Lipstick	'000 kg	38	38	37
063.15	**Malt** (excluding extract)	'000 tonnes	565	558	536

(*a*) Petrol and diesel. Excludes car, motorcycle, truck, tractor, aero, and marine engines. (*b*) Excludes underfelts and products of coir, sisal or other hard fibres. (*c*) Includes wheatmeal for baking, excludes sharps and atta and other flour. (*d*) Excludes grape must. (*e*) Excludes fabric liners for dipped gloves but includes moulded or heat-sealed work gloves. (*f*) Includes ice cream combined with other confections, including those aerated milk-based confections which contain 10% or more butterfat. (*g*) Includes malted milk and milk sugar (lactose). (*h*) Primary mills output. (*i*) Petrol cylinder, electric and hand. (*j*) Includes lead content of lead alloys from primary sources but excludes lead-silver bullion.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*	*Unit of quantity*	*1980–81*	*1981–82*	1982–83p
	Margarine—				
121.01	Table	'000 kg	99,068	105,282	104,562
121.06, 08	Other	"	40,938	42,199	47,326
	Mattresses—				
844.22, 25, 27	Inner spring	'000	703	708	664
844.42, 45, 47	Rubber	"	10	4	n.p.
844.52–67	Other	"	523	529	n.p.
027.02–77	Meat, canned(*a*)	'000 kg	40,603	34,658	40,823
	Meters (domestic)—				
703.11	Water consumption	'000	166	176	197
	Milk, condensed, concentrated and evaporated—				
051.31	Full cream, coffee and milk, sweetened	'000 kg	17,170	n.p.	n.p.
051.25	Full cream, unsweetened	"	46,377	36,686	35,858
051.28	Skim	"	20,349	19,494	21,157
	Milk powder in powdered form—				
051.71	Full cream	"	75,225	63,299	58,932
051.75,80	Skim	"	56,079	76,201	88,276
051.83	Buttermilk or mixed skim and buttermilk	"	6,888	n.p.	8,290
503.13–32	Motors, electric (excl. automotive)	'000	4,021	3,833	2,540
	Motor vehicles, finished and partly finished				
581.02–08, 22	Cars	No.	244,597	285,387	293,805
581.10–16, 28	Station wagons	"	72,432	88,432	69,284
582.04, 31, 06, 32	Utilities and panel vans	"	24,840	19,271	15,392
582.07, 47, 48	Trucks and truck-type vehicles	"	21,715	20,773	16,270
465.16	**Nails**—steel	tonnes	22,925	20,856	16,483
	Oatmeal and rolled oats—				
062.62	For porridge, etc.	tonnes	20,916	23,676	23,173
	Paints, etc.—				
	Architectural and decorative(*b*)—				
	Solvent thinned—				
410.01	Primers and undercoats	'000 litres	11,347	9,348	8,778
410.03, 05, 07	Finishing coats	"	27,640	24,245	22,481
	Water thinned—				
410.11, 13, 15	Plastic latex	"	46,096	46,767	42,717
410.17	Other water based	"	2,787	3,066	4,152
410.25	Tinting colours (all types) packed for sale or transfer out	"	525	487	n.p.
	Paper—				
351.11	Newsprint	'000 tonnes	214	304	366
351.18–79	Other	"	764	706	634
352.01	Paperboard (*c*)	"	486	487	572
336.12	Particle board (resin bonded)	'000 m²	686	707	572
479.22	Plaster of Paris	'000 tonnes	443	n.p.	n.p.
479.32, 33	Plaster sheets—Non-acoustic	'000 m²	63,617	63,768	51,229
334.32, 34, 36, 38	Plywood, 1 mm basis	"	93,397(*d*)	90,602(*d*)	61,877(*d*)
	Preserves—				
	Fruit—				
076.01–50	Canned or bottled	'000 kg	241,870	206,190	161,241
074.01	Pulp and puree—single strength	"	2,516	1,768	1,080
	Vegetables—				
094.02–48	Canned or bottled	"	121,311	138,645	126,220
092.02, 06, 10, 19	Quick frozen	"	168,735	200,925	183,658
	Pyjamas—				
774.27,29	Men's, youths' and boys', woven (suits only)	'000 doz	328	269	257
774.50–59, 64, 66	Women's, maids' and girls' (incl. nightdresses)	"	677	680	639
832.65, 85	**Racquet** frames (all types)	doz.	7,603	n.p.	n.p.
	Records (phonograph)—				
647.93	Single play	'000	11,445	9,927	7,783
647.94	Extended play	"	152	184	67
647.95	Long play	"	22,289	22,329	17,208
657.33, 34, 35	Refrigerators, domestic, electric	"	286	327	277
403.02, 18–96, 404	Resins, synthetic and plastics, for all purposes	'000 tonnes	808	921	884

(*a*) Excludes poultry and baby food. (*b*) Excludes heavy duty coatings. (*c*) Excludes coated container board. (*d*) Excludes case plywood.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	*Article*	*Unit of quantity*	*1980–81*	*1981–82*	*1982–83p*
123.18	**Sauce,** tomato (incl. tomato ketchup)	'000 litres	25,594	26,234	23,347
062.04	Semolina	'000 tonnes	33	34	39
773.04–09	Shirts, woven (men's, youths' and boys'), collar attached (*a*)	'000 doz	504	n.p.	n.p.
654.41	Sink heaters, electric	No.	9,620	9,200	7,880
805.01–13	Soap, for personal toilet use(*b*)	tonnes	32,095	36,141	33,617
	Soup—				
122.13	Dry powders, granules and cubes	'000 kg(*c*)	5,958	5,351	5,835
122.15	Uncooked soup vegetables	"			
127.15	Starch (incl. cornflour)	"	151,914	172,130	161,459
	Stoves, ovens and ranges, domestic cooking—				
661.02–11	Electric(*d*)	No.	267,012	232,229	160,247
662.26, 31, 34, 36, 42, 43	Gas(*e*)	"	92,781	105,895	114,754
662.01, 03	Solid fuel	"	5,608	2,771	n.p.
	Sugar—				
102.01	Raw	'000 tonnes	3,323	3,435	3,534
405.36	Sulphate of ammonia	tonnes	217,902	209,927	196,520
415.07, 405.25	Superphosphate(*f*)	'000 tonnes	3,557	3,464	2,877
803.61	**Talcum** powder	'000 kg	4,838	4,650	4,461
	Tallow (including dripping), rendered—				
391.15	Edible	"	68,278	68,395	65,857
391.24	Inedible	"	248,067	228,561	258,179
647.25–28	Television sets (colour)	No.	357,799	376,958	271,908
	Tiles, roofing—				
475.30	Concrete	'000	189,396	166,841	128,739
472.12	Terracotta	"	49,390	52,025	40,704
	Timber—				
	From native logs—				
331.01–07	Hardwood, etc.	'000 m³	3,407	3,276	2,985
331.09–19	Softwood	"			
661.22	Toasters, electric (domestic)	No.	686,743	711,365	526,002
094.51	Tomato juice	'000 litres	7,805	8,186	5,598
094.53	Tomato paste and puree	"	16,189	17,902	15,846
373.58–64	Towels (*g*)	'000 m²	–	–	7,592(*h*)
671.51–59	Toilet cisterns	No.	541,261	683,299	n.p.
683.03–11	Transformers, chokes and ballasts, for distribution of power and light, etc.	"	20,747	22,589	20,627
773.90–97, 774.01–18, 36–49, 61–73, 91–97	Underwear (men's, women's, children's)	'000 doz	n.p.	7,251	6,604
692.02, 04	**Vacuum** cleaners (domestic)	'000	236	175	n.p.
	Wash basins—				
671.37	Earthenware	"	265	275	212
693.02, 04	Washing machines, household, electric	"	n.p.	n.p.	240
	Weatherboards—				
332.12	Australian timber	m³	13,240	17,921	20,422
332.14	Imported timber	"	1,747	3,392	n.p.
152.14	Wheatmeal for stock feed	'000 tonnes	482	468	414
519.01	Wheelbarrows (metal)	No.	176,409	206,949	172,256
	Wine, beverage—				
172.42	Fortified	'000 litres	53,620	54,235	40,272
172.46	Unfortified	"	246,596	253,029	253,307
341.32–45	Wood pulp (air dried)	'000 tonnes	706	669	626
383.09, 11, 12	Wool, scoured or carbonised	tonnes	90,253	81,786	80,351
383.27-31	Wool tops, pure	'000 kg	19,880	21,351	22,190
	Yarn (including mixtures)—				
383.79–87	Cotton	"	21,696	22,004	18,884
383.89–95	Woollen	"	19,440	19,919	19,380
383.97, 99; 384.01, 03	Wool worsted	"			
383.41–77	Synthetic (all types)	"	. .	. .	24,095(*i*)
457.04	**Zinc,** refined(*j*)	'000 tonnes	300	274	301

(*a*) Business or formal. (*b*) Excludes powdered shampoo. (*c*) In terms of 12% moisture basis (*d*) Includes wall ovens but excludes cooking tops and portable units. (*e*) Upright and elevated (with ovens) including wall ovens, but excluding hotplates, stovettes, etc. (*f*) Includes double and triple superphosphate and ammonium phosphate expressed in terms of single superphosphate i.e. 22% P_2O_5 equivalent (g) Towels or tea towels of cotton or terry fabrics (h) New series from 1982–83. (*i*) New series from 1982–83. (*j*) Primary origin only includes small quantities of zinc dust.

Enterprise Statistics—Integrated Economic Censuses and Surveys

The Integrated Economic Censuses and Surveys conducted by the Australian Bureau of Statistics have, since 1977-78, included *enterprises* primarily engaged in Mining and Manufacturing annually, with Electricity and Gas Production and Distribution collected in 1977–78 and annually from 1979–80, while other economic sectors are approached on a rotating basis. Statistics in respect of enterprises have been published in *Integrated Economic Censuses and Surveys, Enterprise Statistics: Details by Industry Class, Australia* (Cat. No. 8103.0).

Below is a brief summary of the censuses collection units and methodology and a summary table of enterprise statistics. More detailed explanations on the censuses are shown in the above publication.

The business units, as standardised for purposes of the Integrated Economic Censuses and Surveys are at three levels: the establishment (and associated administrative offices and ancillary units); the enterprise; and the enterprise group.

The central unit from which statistical information was collected is the *enterprise*, defined broadly as the unit comprising all operations in Australia of a single operating legal entity. The term *legal entity* is used to cover a sole proprietor, or partnership, or company, but also includes co-operative societies and some government authorities mainly engaged in the industries included in the censuses and surveys.

The group of legal entities owned or controlled by a single company is recognised as a separate type of unit—the *enterprise group*. The basic unit for which most data were collected and tabulated is the *establishment*, defined in general as a unit comprising all the operations carried on by the one enterprise at a single physical location—such as an individual factory, shop or mine.

In the Integrated Economic Censuses and Surveys, information was collected using a common framework of reporting units (enterprises and establishments as defined above) and data concepts and in accordance with a standard industrial classification (the *Australian Standard Industrial Classification*, 1978 Edition). As a result the statistics for the industries covered by the censuses and surveys are provided with no overlapping or gaps in scope, so that aggregates for economic data such as value added, employment, wages and salaries, fixed capital expenditure and stocks are obtained on a consistent basis for all industries and business units covered by the censuses and surveys. A detailed description of the integration of economic censuses is contained in Chapter 31, Year Book No. 56, 1970.

ENTERPRISES—SUMMARY OF OPERATIONS BY INDUSTRY, AUSTRALIA

Industry and year	*Enterprises operating during year* (*a*)	*Persons employed at 30 June* (*b*)	*Wages and salaries* (*c*)	*Turnover* (*d*)	*Purchases and selected expenses* (*e*)	*Rent, leasing and hiring expenses* (*f*)	*Stocks at*(*g*) *30 June*	*Stocks at*(*g*) *30 June*	*Value added* (*h*)	*Fixed capital expenditure less disposals* (*i*)
	No.	No.	$m	$m	$m	$m	$m	$m	$m	$m
Mining (excluding services to Mining)										
1980-81 . . .	803	78,564	1,590.3	8,831.2	2,995.2	117.2	920.4	1,231.0	6,029.4	1,847.0
1981-82(*j*) . .	787	77,109	1,815.8	9,703.9	3,614.9	137.1	1,277.1	1,590.4	6,265.3	2,595.0
Manufacturing—										
1980-81 . . .	23,091	1,168,374	15,191.0	74,607.1	44,654.9	959.4	12,203.2	13,583.3	30,372.9	3,155.1
1981-82(*j*) . .	23,801	1,136,979	17,043.5	81,678.4	48,421.0	1,167.9	13,153.4	14,130.9	33,066.9	4,245.3
Electricity and Gas										
1980-81 . . .	101	89,393	1,416.4	5,922.4	2,612.7	23.8	362.6	449.0	3,372.3	2,050.8
1981-82(*j*) . .	98	94,037	1,691.3	7,359.8	3,381.9	36.1	435.9	581.5	4,087.5	2,566.2
Wholesale Trade (*k*)—										
1981-82(*j*) . .	26,858	343,258	4,709.8	68,300.1	54,189.2	683.9	9,545.1	10,506.0	14,387.8	695.2

(*a*) The number of enterprises in operation for all or any part of the year which were in the scope of the censuses and surveys. (*b*) Working proprietors and employees, including part-time and casual employees as at 30 June. (*c*) Wages and salaries paid during the year to employees of the enterprise. Drawings of working proprietors are excluded. (*d*) Sales of goods, commission revenue, repair and service revenue, rent, leasing and hiring revenue, government bounties and subsidies and all other operating revenue except interest, royalties and dividends. (*e*) Purchases by the enterprise of goods for manufacture or resale, containers, stores and supplies (except office supplies) and charges for fuels, electricity and water, freight and cartage, vehicle running expenses, sales commission expenses, repair and maintenance expenses, and commission and sub-contract expenses. (*f*) Amount paid for rent and leasing premises, vehicles and equipment. (*g*) Stocks of materials, fuels, etc. work in progress and finished goods owned by the enterprise. (*h*) This is derived as turnover plus increase (less decrease) in stocks, less purchases and selected expenses, less rent, leasing and hiring expenses. (*i*) Outlay on new assets (including progress payments) and land and secondhand fixed tangible assets less disposals. (*j*) Preliminary estimates and may be subject to revision. (*k*) Collected every five years as part of the rotating economic censuses and surveys.

Foreign Ownership and Control in Manufacturing Industry

Summary information on foreign ownership and control in the manufacturing industry is shown in Chapter 24.

INTERNAL TRADE

Wholesale Trade

A sample survey of wholesale establishments was conducted in respect of the year ended 30 June 1982. A table showing the summary of operations of establishments is shown below.

WHOLESALE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY GROUP AUSTRALIA, 1981–82

Industry group		*Establish-ments operating during the year (No.)*	*Persons employed at 30 June (a) ('000)*	*Wages and salaries (b) ($m)*	*Turnover ($m)*	*Stocks*		*Purchases, transfers in and selected expenses ($m)*	*Value added ($m)*
ASIC Code	*Description*					*Opening ($m)*	*Closing ($m)*		
471	General wholesalers	326	5.0	70.0	1,242.3	123.9	126.1	1,043.9	200.6
472	Builders hardware dealers	6,928	55.0	696.6	6,607.5	913.7	1,025.0	5,196.4	1.522.3
473	Machinery and equipment wholesalers	11,147	114.0	1,639.0	15,888.1	2,908.2	3,515.8	12,371.7	4,124.0
474	Minerals, metals and chemicals wholesalers	3,463	39.1	640.8	18,051.5	2,277.8	2,387.0	14,827.9	3,332.8
475	Farm properties and produce dealers, n.e.c.	3,616	23.0	300.3	9,961.7	1,548.7	1,466.8	8,397.2	1,482.5
476	Food, drink and tobacco wholesalers .	5,358	51.0	659.1	16,513.8	925.9	1,012.7	14,522.9	2,077.7
477	Textile and clothing wholesalers . .	2,371	16.4	217.5	3,178.4	420.0	457.0	2,502.4	713.0
478	Household goods wholesalers . . .	1,718	17.6	245.3	3,411.8	496.1	618.9	2,760.6	774.0
479	Other specialist wholesalers	4,392	39.9	527.0	5,922.9	882.3	964.5	4,525.4	1,479.8
	Total	**39,319**	**361.0**	**4,995.6**	**80,778.0**	**10,496.7**	**11,574.0**	**66,148.5**	**15,706.7**

(*a*) Includes working proprietors. (*b*) Excludes drawings by working proprietors.

Retail Trade

Retail census

The definition of retail trade, for the purpose of the most recent retail census which was taken for the year ended 30 June 1980, is the resale of new and used goods to final consumers for personal and household consumption. A table showing the summary of operations of establishments covered in the census is given below.

Retail surveys

In intercensal periods, monthly estimates of the value of retail sales of goods (excluding motor vehicles parts, petrol etc.) by industry groupings, and quarterly estimates by commodity groups, are obtained by means of sample survey for each State and the Australian Capital Territory. Tables showing estimates derived from these surveys are given below.

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS(*a*): SUMMARY OF OPERATIONS, BY INDUSTRY GROUP OR CLASS(*b*), 1979-80

Industry group or class		*Establish-ments at 30 June (No.)*	*Persons employed at 30 June (No.)(c)*	*Wages and salaries(d) ($m)*	*Retail sales ($m)*	*Turnover ($m)*	*Stocks*		*Purchases, transfers in and selected expenses ($m)*	*Value added ($m)*
ASIC Code	*Description*						*Opening ($m)*	*Closing ($m)*		
	RETAIL ESTABLISHMENTS									
481	Department and general stores . . .	857	99,569	717.4	4,010.1	4,253.8	602.7	692.4	3,206.9	1,136.6
484	Clothing, fabrics and furniture stores . . .	17,908	81,797	519.1	4,057.5	4,143.4	740.4	851.3	3,140.5	1,113.7
485	Household appliance and hardware stores(*e*)	8,196	43,542	319.7	2,575.9	2,965.6	448.2	517.8	2,252.9	782.3
486	Motor vehicle dealers, petrol and tyre retailers(*f*) . . .	26,516	175,995	1,319.2	12,467.6	18,203.2	1,625.7	1,752.8	15,130.8	3,199.6
488	Food stores	39,416	260,266	1,131.3	12,577.3	12,747.0	635.0	751.5	10,517.0	2,346.5
489	Other retailers . . .	17,607	76,209	406.9	3,251.5	3,385.4	469.1	549.9	2,489.4	976.7
	Total . . .	**110,500**	**737,378**	**4,413.6**	**38,940.0**	**45,698.4**	**4,521.0**	**5,115.6**	**36,737.6**	**9,555.4**

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS(*a*): SUMMARY OF OPERATIONS, BY INDUSTRY GROUP OR CLASS(*b*), 1979-80—*continued*

ASIC Code	Industry group or class — Description	Establishments at 30 June (No.)	Persons employed at 30 June (No.)(c)	Wages and salaries(d) ($m)	Retail sales ($m)	Turnover ($m)	Stocks — Opening ($m)	Stocks — Closing ($m)	Purchases, transfers in and selected expenses ($m)	Value added ($m)
	SELECTED SERVICE ESTABLISHMENTS									
9133	Motion picture theatres	577	6,777	44.9	31.8	177.9	1.3	1.4	76.0	102.0
923	Restaurants, hotels and accommodation	17,702	183,310	1,021.6	2,618.3	4,670.2	135.5	160.5	2,617.0	2,078.2
9241,2,3	Licensed clubs(*g*)	3,243	52,297	423.1	697.4	1,515.2	48.2	50.1	577.6	939.5
934	Laundries and dry cleaners	1,365	12,106	91.3	1.5	223.5	6.8	8.0	66.7	158.0
935	Hairdressers, beauty salons	2,265	12,282	78.2	12.2	173.3	4.8	5.7	50.7	123.4

(*a*) Excludes all bread and milk vendors and single establishment enterprises with turnover of less than $50,000 (except for ASIC classes 9232 and 9233 in ASIC group 923). For ASIC classes 9232 and 9233 all establishments are included irrespective of turnover size. (*b*) A class total or a total for a combination of classes has been shown where the scope of the census did not include all the ASIC classes in an ASIC group. (*c*) Includes working proprietors. (*d*) Excludes drawings by working proprietors. (*e*) Includes household appliance and domestic hardware stores, watchmakers and jewellers, music stores and electric appliance repairers but excludes establishments predominantly engaged in selling building materials, paint, tools of trade, etc. (*f*) Establishments predominantly engaged in wholesaling new motor vehicles are included in this group. (*g*) Includes licensed bowling clubs, licensed golf clubs and licensed clubs, n.e.c.

VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.): INDUSTRY GROUPINGS (*a*) (*b*) (*c*)

($ millon)

ASIC Code	*Description*	*1982-83*	*1983-84*
481	Department and general stores	4,918.2	5,237.2
4843, 4, 5, 7, 8, 9	Clothing, fabrics and furniture stores (*b*)	5,925.1	6,367.8
4853, 4, 5, 6	Household appliance and hardware stores (*c*)	3,532.8	3,878.1
488; 9231, 2; 9241, 2, 3	Food stores, restaurants, hotels (mainly drinking places) and licensed clubs	21,522.8	23,234.7
489; 935	Other retailers; hairdressers and beauty salons	4,682.4	5,127.5
	Total (*d*)	**40,581.3**	**43,845.3**

(*a*) Excludes Northern Territory. Excludes ASIC groups 486 (Motor vehicle dealers; petrol and tyre retailers) and 487 (Milk and bread vendors). (*b*) Excludes shoe repairers. (*c*) Excludes electric appliance repairers n.e.c. and builders hardware dealers. (*d*) A small difference between this figure and that for total value of retail sales shown in the table below occurs due to some businesses having access to more up-to-date records when supplying the data for commodities.

VALUE OF RETAIL SALES OF GOODS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.): AT CURRENT AND CONSTANT PRICES : COMMODITY GROUPS (*a*)

($ million)

	Current prices			*Average 1979–80 prices*		
Commodity group	*1981–82(b)*	*1982–83*	*1983–84*	*1981–82(b)*	*1982–83*	*1983–84*
Groceries	7,179.0	8,871.1	9,851.6	5,880.4	6,534.9	6,857.8
Butchers' meat	2,312.4	2,302.3	2,369.9	2,223.9	2,091.6	2,007.3
Other food (*c*)	3,834.0	4,054.6	4,273.5	2,996.7	2,927.1	2,777.7
Total food and groceries	*13,325.4*	*15,228.0*	*16,495.0*	*11,101.0*	*11,553.6*	11,642.8
Beer, wine and spirits	4,944.1	5,199.1	5,499.7	4,189.7	3,936.7	3,832.2
Clothing and drapery	5,266.0	5,670.7	6,019.5	4,608.9	4,677.4	4,665.3
Footwear	859.6	914.7	1,025.2	736.2	723.5	764.0
Hardware, china and glassware(*d*)	1,637.3	1,779.9	2,011.7	1,388.5	1,362.1	1,410.4
Electrical goods(*e*)	2,754.6	3,008.3	3,296.5	2,554.4	2,741.9	2,987.5
Furniture and floor coverings	1,918.5	1,880.2	1,938.6	1,610.0	1,415.3	1,363.9
Chemists' goods	1,864.4	1,939.9	2,119.8	1,518.5	1,414.3	1,442.2
Newspapers, books and stationery	1,405.0	1,600.7	1,796.4	1,041.4	1,052.2	1,113.6
Other goods(*f*)	3,182.8	3,317.5	3,593.8	2,763.9	2,628.0	2,587.9
Total (excluding motor vehicles, etc.)	**37,157.7**	**40,539.1**	**43,796.1**	**31,512.5**	**31,505.0**	31,809.8

(*a*) Excludes Northern Territory. (*b*) Excludes Australian Capital Territory. (*c*) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish and wrapped lunches. (*d*) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (*e*) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (*f*) Includes tobacco, cigarettes, etc., sporting goods, etc., but excludes grain and produce and business machines.

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CHAPTER 18

ENERGY

Introduction

Australia is well endowed with energy resources and is presently one of only five OECD countries that are net energy exporters. It presently supplies about two-thirds of its oil requirements from domestic sources and should be able to maintain this relatively favourable situation for some years at least.

Estimates of Australia's demonstrated economically recoverable resources of energy as at December 1983 are:

Brown coal	37,366 megatonnes
Black coal	30,901 megatonnes
Uranium	474 kilotonnes U
Natural gas	629 teralitres
Crude oil and natural gas liquids	396 gigalitres

Additionally, there are huge inferred resources of black coal amounting to about ten times the demonstrated figure quoted above but presently uneconomic, and resources of oil shale equivalent to about ten times the level of crude oil and condensate resources.

In recognition of the importance of energy resources to Australia's national wealth, policies have been developed to respond to the changing pattern of world energy supplies, to try to minimise uncertainty for the future and to develop other energy sources which can substitute for oil in a wide range of uses, in both domestic and export markets. The basic aims of these policies are:

- to attempt to ensure that an adequate supply of energy is available at all times;
- to facilitate the efficient use of energy in Australia and the efficient development of Australia's energy resources in response to the needs of domestic and overseas energy markets; and
- to ensure the benefits of energy resource development are shared equitably throughout the Australian community.

More specific objectives in relation to liquid fuels are:

- to prepare Australia for major interruptions to oil supplies through stocks and emergency allocation schemes and other short lead time measures;
- to achieve the optimum economic level of liquid fuels self-sufficiency through, for example:
  - encouraging the conservation and more efficient use of liquid fuels;
  - replacing the use of oil by relatively abundant energy sources such as coal and natural gas;
  - encouraging petroleum exploration and development; and
  - developing technologies for alternative energy sources, particularly liquid fuels and renewables.

In establishing an appropriate framework within which Australia's energy industries can develop, the Government attaches key importance to the pricing and fiscal environment surrounding production, consumption and trade of Australia's energy resources. Realistic pricing of all energy resources is of fundamental importance in developing this framework. The policy of import parity pricing of indigenous crude oil has been, and is important in meeting the Government's policy objectives in the energy field generally and in the field of liquid fuels in particular. This is supplemented however by measures such as support for energy research and development. In this respect a total of $115 million has been committed to energy research and development through the National Energy Research, Development and Demonstration Program since its inception in 1978. The primary focus of the Program has been the co-ordination and support of research and development activity in Australia to achieve a full understanding of the extent and quality of Australia's energy resource base, and the development of appropriate technologies to enable these resources to be used to their fullest extent for the benefit of the Australian people.

The Government has indicated that a priority matter for its attention is reform of the existing arrangements for the taxation of energy and other extractive industries. It has expressed a preference for the replacement of the present complex system of Commonwealth and State taxes, royalties, licence fees and other charges currently applicable to many extractive industries with more equitable and efficient profits-related taxes.

In a joint statement dated 27 June 1984 the Treasurer and the Minister for Resources and Energy announced details of a resource rent tax to apply from 1 July 1984 to offshore petroleum projects which have not yet reached the development stage (known as "greenfields" petroleum projects). The tax will be payable on those projects earning, before company tax, a minimum rate of return on project outlays equal to the long term bond rate plus 15 percentage points. Profit in excess of this threshold rate will be taxed at a rate of 40 per cent, additional to company tax.

The resource rent tax is intended to replace all existing excise and royalties on greenfields petroleum projects. It will be levied prior to company tax and be deductible for company tax. Deductions from resource rent tax are available for current and capital expenditure excluding payments related to debt and equity capital and for related exploration expenditure.

Enabling legislation for the resource rent tax is expected to be introduced into Parliament during the 1985 Autumn Session.

Advice and co-ordination

Institutional Arrangements

The Commonwealth Minister for Resources and Energy has portfolio responsibility for national energy policy matters, including the commercial development of hydrocarbon fuels and minerals.

The Department of Resources and Energy provides advice to the Minister on energy policy and provides support for a number of advisory bodies including the National Energy Research Development and Demonstration Council (NERDDC), the Australian Minerals and Energy Council (AMEC), the National Oil Supplies Advisory Committee (NOSAC), the National Petroleum Advisory Committee (NPAC), the National Fuels Emergency Consultative Committee (NFECC), and the Australian Council Coal Consultative (ACCC).

It is also responsible for implementation of action required from Australia's membership of the International Energy Agency (IEA) and for the national system of accounting for a control of nuclear materials under Australia's Agreement with the International Atomic Energy Agency (IAEA).

International Energy Agency

The International Energy Agency (IEA) was established in Paris in November 1974 as an autonomous institution within the framework of the Organisation for Economic Co-operation and Development. Australia joined the IEA in May 1979.

The Agency carries out the International Energy Program and the Long Term Co-operation Program. These programs aim to prepare member countries against risk of oil supply disruptions and to share remaining supplies in the event of a severe oil shortfall, to develop alternative energy sources and the more efficient use of energy including through co-operative research and development programs, and to promote co-operative relations with other oil-producing and oil consuming countries.

The main decision-making body of the IEA is the Governing Board. The Board meets as required at Ministerial level and several times a year at senior official level. The IEA has standing groups on Long Term Co-operation, the Oil Market, Emergency Questions, a Committee on Research and Development and an ad hoc group on International Energy Relations.

Research and Development

NERDDC

The National Energy Research, Development and Demonstration (NERD & D) Program has been established to stimulate the level of energy research, development and demonstration in Australia. Grants under the NERD & D Program are approved by the Minister for Resources and Energy who is advised by the National Energy Research, Development and Demonstration Council (NERDDC).

The Council consists of twelve members drawn from government, laboratories, private industry and tertiary institutions. It is supported by seven Technical Standing Committees covering all major areas of energy technology.

Government, industry and university research bodies are eligible to apply for grants under the NERD & D Program which is administered by the Department of Resources and Energy. From the start of the Program in 1978, $115 million had been committed by June 1984.

Further Commonwealth support for energy research, development and demonstration is provided through budget appropriations to Commonwealth agencies such as CSIRO, BMR and the Australian Atomic Energy Commission (AAEC), the Australian Industrial Research and Development Incentives Scheme, and Commonwealth funding of all Australian universities.

Commonwealth Scientific and Industrial Research Organization (CSIRO)

Energy research within the Institute of Energy and Earth Resources is carried out with the objectives of improving methods of locating, evaluating, defining and characterising Australia's energy resources and of planning their development and effective use, consistent with the minimisation of environmental stresses. Divisions of the Institute engaged in energy research are the Division of Geomechanics at Syndal (Vic.); the Division of Energy Chemistry at Lucas Heights (N.S.W.); the Division of Energy Technology at Highett (Vic.); the Division of Fossil Fuels at North Ryde (N.S.W.); the Division of Mineral Chemistry at Port Melbourne (Vic.); the Division of Mineral Engineering at Clayton (Vic.); the Division of Mineral Physics at North Ryde (N.S.W.), Lucas Heights (N.S.W.) and Port Melbourne (Vic.), and the Physical Technology Unit at Ryde (N.S.W.).

Research on certain renewable sources of energy is carried out in the Institute of Biological Resources (Divisions of Plant Industry, Water and Land Resources and the Centre for Irrigation Research).

AMEC

The Australian Minerals and Energy Council (AMEC) was established on 9 April 1976 by agreement between State and Federal mines and energy Ministers and replaced the former Australian Minerals Council. AMEC is principally a body for consultation on minerals and energy matters and provides a forum for Ministers to discuss policy issues of mutual concern and coordinate policy action. An AMEC Advisory Committee which is composed of the Departmental Heads or their nominees provides for officer level consultation and information exchange. AMEC establishes committees, subcommittees etc, to undertake specific tasks and report back through its Advisory Committee as the need arises. At present, the following are in place:

- Co-ordinating Committee on Energy Conservation
- Standing Committee on Offshore Petroleum Legislation
- Commonwealth/State Standing Joint Study Group on Raw Materials Processing
- Working Group on the Impact of the Activities of the Heritage Commission on Resources Developments
- Sub-committee on the Development of Alternative Commonwealth and State Liquid Fuels Emergency Legislation
- Working Party on Power Supplies to Remote Properties.

ACCC

The Australian Coal Consultative Council (ACCC) was established following a Coal Industry Conference in Canberra on 30 March 1983. Its terms of reference are to review and report from time to time on the economic and structural problems of the industry. The Council is a tripartite body, chaired by the Minister for Resources and Energy. Its membership comprises the New South Wales and Queensland Ministers responsible for the industry, coal mine proprietors, mining unions and the ACTU. The Australian Mining Industry Council has 'observer' status. The ACCC has met four times, most recently on 14 September 1984.

A National Research Group was set up at the November 1983 meeting, which commissioned four Working Party reports examining particular problems of the industry. These reports have been completed and considered by the ACCC. An Advisory Committee was established at the third ACCC meeting, on 21 June 1984. The Committee, whose membership reflects that of the ACCC, is to meet more frequently (approximately monthly) than the ACCC, and report to the ACCC and through it to the relevant Federal and State Ministers.

The ACCC has been effective in developing a greater level of understanding of the industry's situation, particularly on industrial relations issues. This has led to the development of a labour adjustment package to meet the problems of the industry—particularly in N.S.W.

NOSAC

The National Oil Supplies Advisory Committee (NOSAC) was formed in 1983 by the amalgamation of separate Commonwealth/industry and Commonwealth/State bodies set up during the period of tight oil supply in 1979. Representatives of the Commonwealth Government, State Government energy authorities and major domestic oil producers and refiners meet in NOSAC about three times a year to review the situation and outlook for domestic and international oil supplies. Matters discussed include oil production, new oil and gas developments, imports, exports, stock levels, regional shortages, industrial relations, shipping, technical matters and government policies affecting the oil industry.

NPAC

Membership of the National Petroleum Advisory Committee (NPAC) is drawn from agricultural, general aviation, fishing, manufacturing, mining, shipping and transport industries, oil industry, trade union movement and motorists' organisations as well as Commonwealth, State and Territory Governments. The Department of Resources and Energy provides the Secretariat for NPAC. In accordance with the NPAC recommendations the Commonwealth Government has enacted the *Liquid Fuel Emergency Act 1984* and established with the States and the Northern Territory the National Fuels Emergency Consultative Committee.

NFECC

The National Fuels Emergency Consultative Committee (NFECC) chaired by the Commonwealth and comprising officials of the Commonwealth, States and the Northern Territory, was established in late 1983 to consult and advise Governments on matters relevant to the preparation for, and detailed management of, a national liquid fuels crisis; and to act as the prime channel of consultation between Governments in the event of such a crisis. NFECC meets three or four times a year in a programme of co-ordinated arrangements for managing a national fuel crisis.

Resources

Black coal

Black coal is currently second to petroleum products as the largest source of primary energy in Australia. By world standards, in relation to present population and consumption, Australia is fortunate in the availability of easily worked deposits of coal. The country's main black coal fields are located in New South Wales and Queensland, not far from the coast and from the main centres of population.

Australia's inferred resources of black coal are very large, amounting to over 500,000 megatonnes (Mt). At 31 December 1983, Australia's demonstrated economic resources of black coal were estimated to total 53,852 Mt of which 30,901 were considered recoverable. These recoverable resources are located largely in the Sydney Basin in New South Wales and the Bowen Basin in Queensland. There are other coal-bearing basins in New South Wales and Queensland, and small deposits are being worked in Western Australia, South Australia and Tasmania. Australian saleable black coal production in 1983-84 was 105.5 Mt.

For further details relating to the production of black coal in Australia see Chapter 16, Mineral Industry. Details about the nature and age of black coal are given in Year Book No. 64, pages 460 and 461.

Brown coal

Australia's measured and indicated resources of brown coal are estimated at 42,000 Mt, located principally in Victoria's Latrobe Valley (35,030 Mt). Small deposits exist in other areas of south Gippsland, in south-eastern Victoria at Gelliondale and in the south-central region at Anglesea, Bacchus Marsh and Altona. Deposits are also known at many places along the southern margin of the continent, as far north as central Queensland, and large deposits are being tested in the Kingston area of South Australia, the Esperance area of Western Australia and at Rosevale in the north-east of Tasmania.

Because brown coal has a relatively low specific-energy value and high water content, its utilisation depends on large-scale, low-cost mining and negligible transportation costs in its raw state.

In Victoria the brown coal industry has reached a high degree of sophistication in mining, on-site development for power generation, briquetting and char manufacture. Production of brown coal in Victoria during 1983 was 33.1 Mt. The brown coal deposits of the Latrobe Valley have been developed by the State Electricity Commission of Victoria (SECV) for the generation of electricity. By the end of 1983, about 830 Mt of raw brown coal had been mined.

Energy research and development statistics

Estimates of the expenditure on energy R&D carried out in Australia during 1982–83, and classified by energy objective, are presented in the table below.

The estimate of manpower resources devoted to energy R&D in Australia during 1982–83 was 3,222 man years. Of this amount, business organisations accounted for 1,079 man years, general government organisations for 1,155 man years and higher education organisations for 988 man years.

More detailed statistics are contained in the ABS publication *Research and Experimental Development; Energy Production, Utilisation and Conservation, All Sectors, Australia, 1982–83* (8110.0)

ENERGY RESEARCH AND EXPERIMENTAL DEVELOPMENT(a), AUSTRALIA, 1982-83
DETAILS OF R & D EXPENDITURE BY ENERGY OBJECTIVE(b)

($'000)

Energy objectives(b)		*Total expenditure(c)*	*Sector of performance(d)*		*Source of funds(f)*	
Energy codes	*Description*		*Business enterprises(e)*	*General government and higher education*	*Industry*	*Government*
	Production and utilisation of energy—					
513	Oil and gas—mining extraction techniques	818	n.p.	n.p.	70	748
111	—refining, transport and storage	3,586	2,620	967	2,633	953
112,523,533	—other	10,110	2,230	7,880	2,897	7,213
113,114,514,524,534	Oil shale and tar sands	7,991	n.p.	n.p.	425	7,566
512	Coal—mining extraction techniques	9,520	n.p.	n.p.	5,990	3,531
121	—preparation and transport	9,159	5,136	4,024	3,930	5,230
122	—combustion	5,113	2,808	2,305	2,873	2,240
211	—conversion	13,550	2,503	11,046	1,560	11,990
123,522,532	—other	8,114	3,449	4,665	2,867	5,247
131	Solar—heating and cooling	5,913	2,778	3,135	2,613	3,300
132	—photo electric	4,065	682	3,383	329	3,736
133	—thermal electric	1,377	431	946	469	907
141	Nuclear—non-breeder—light water reactor	1,850	—	1,850	1	1,849
142	—other converter reactor	—	—	—	—	—
143,511,521,531	—fuel cycle	13,980	n.p.	n.p.	736	13,243
144	—supporting technologies	387	n.p.	n.p.	n.p.	n.p.
145	—breeder	—	—	—	—	—
146	—fusion	7,714	n.p.	n.p.	n.p.	n.p.
151	Wind	862	283	578	301	561
152	Ocean	56	—	56	—	55
153	Geothermal	60	—	60	—	60
221	Biomass	6,929	2,644	4,285	2,497	4,432
154	Other sources and new vectors	2,615	2,100	515	1,871	745
	Conservation of energy—					
311	Industry	7,708	5,605	2,103	5,283	2,425
312	Residential and commercial	6,062	3,349	2,713	3,133	2,929
313	Transportation	13,939	8,356	5,582	6,837	7,102
314	Other	1,645	1,298	348	1,174	471
	Other energy R & D (including supporting technologies)—					
411	Electric power conversion	4,098	2,533	1,565	2,201	1,897
412	Electricity, transmission and distribution	3,031	497	2,534	535	2,496
413	Energy storage, n.e.c.	1,215	640	575	608	606
414	Energy system analysis	2,001	78	1,923	55	1,946
415	Other	3,316	245	3,071	221	3,096
	Total all energy objectives	**156,785**	**59,046**	**97,739**	**54,109**	**102,676**

(*a*) Refers to R & D activity predominantly directed towards producing, storing, transmitting, utilising and conserving energy. (*b*) The energy objective categories represent ultimate national needs rather than the immediate objective of the researcher or the organisation performing the energy R & D. (*c*) Includes expenditure associated with overhead staff providing indirect services to energy R & D. (*d*) The sector classification used is adapted from the guidelines specified by the OECD for use in the conduct of R & D studies. (*e*) Excludes enterprises in ASIC Division A i.e. enterprises mainly engaged in agriculture, forestry, fishing and hunting. (*f*) In accordance with IEA practice, source of funds are classified as either Industry or Government.

Petroleum

For a definition of petroleum, together with a brief description of recovery techniques and the history of the search for petroleum in Australia, *see* Year Book No. 64, pages 461 and 462.

Major prospects for new oil discoveries are in the sedimentary basins off the north-west coast of Australia. It is likely that a significant amount of the oil in these areas will be contained in a small number of large fields. Extrapolation from known areas suggests that undiscovered oil will be of the lighter types and that more gas fields than oil fields will be found. Assessments by the Bureau of Mineral Resources, Geology and Geophysics in March 1984 indicate that there is a 50 per cent chance of finding at least another 413 gigalitres (GL) (2,600 million barrels) of crude oil in Australia. This compares with demonstrated economic resources of 235 GL (1,478 million barrels) and demonstrated subeconomic resources of 53 GL (333 million barrels) as at 31 December 1983.

PETROLEUM RESOURCES (a) AS AT 31 DECEMBER 1983

(*Source:* Department of Resources and Energy)

	Demonstrated Economic (b)				*Demonstrated Sub-economic (c)*			
Basin	*Crude oil GL*	*Condensate GL*	*LPG GL*	*Sales gas* 10^9m^3	*Crude oil GL*	*Condensate GL*	*LPG GL*	*Sales gas* 10^9m^3
Bowen/Surat/Adavale (Qld)	1	—	—	2	—	—	—	6
Gippsland (Vic)	207	23	49	188	—	—	—	—
Gippsland/Bass/Otway (Vic./Tas.)	—	—	—	—	26	7	5	57
Cooper/Eromanga (S.A./Qld)	12	6	11	71	3	1	2	22
Carnarvon/Canning (W.A.)	10	42	27	350	—	—	—	—
Carnarvon/Browse/ Bonaparte (W.A./N.T.)	—	—	—	—	24	19	7	768
Perth (W.A.)	1	—	—	4	—	—	—	—
Amadeus (N.T.)	4	3	—	14	—	—	—	—
Total	**235**	**74**	**87**	**629**	**53**	**27**	**14**	**853**

(*a*) Based on the McKelvey classification which sub-divides resources in terms of the economic feasibility of extraction and their certainty of occurrence. (*b*) Demonstrated economic resources are resources judged to be economically extractable and for which the quantity and quality are computed from specific measurements and extrapolation on geological evidence. (*c*) Demonstrated sub-economic resources are similar to demonstrated economic resources in terms of certainty of occurrence but are judged to be sub-economic at present.

PETROLEUM PRODUCTION IN AUSTRALIA

(*Source:* Department of Resources and Energy)

Year	*Crude oil and Condensate ML*	*LPG (a) ML*	*Natural gas GL*
1979–80	23,667	3,111	9,008
1980–81	23,052	2,982	10,435
1981–82	22,378	3,029	11,550
1982–83	22,069	2,906	11,654
1983–84	26,827	3,129	12,094

(*a*) Naturally occurring.

Crude Oil and Condensate

Indigenous production of crude oil and condensate increased markedly in 1983–84 in response to good industrial relations, reduction of technical constraints on Bass Strait production, the commissioning of new production facilities in the Cooper Basin and the entry into production of the Jackson field in southwest Queensland. Following the emergence of a surplus of light refinery feedstocks above the absorption capacity of local refiners, exports of surplus Cooper Basin condensate and Bass Strait oil commenced in August and November 1983. By June 1984 indigenous crude oil production, excluding condensate and LPG, was running at close to 80 ML a day. During 1983-84 overall self-sufficiency in liquid fuels rose to 77 per cent, a significant rise on the 66 per cent of a year earlier.

Liquefied petroleum gas

Liquefied petroleum gas (LPG) is a valuable co-product of oil and gas production and petroleum refining. The major constituents of LPG are propane, propylene and iso- and normal-butane, which are gaseous at normal temperatures and pressures and are easily liquefied at moderate pressures or reduced temperature. Operations involving LPG are expensive relative to other liquid fuels because LPG has to be refrigerated or pressurised when transported or stored. LPG is an alternative transport fuel for high mileage vehicles in capital cities as well as a petrochemical feedstock and a traditional fuel.

Identified economically recoverable resources of LPG at December 1983 of 87 000 megalitres (ML) are concentrated in Bass Strait, the North West Shelf and the Cooper Basin.

Production of naturally occurring LPG in Australia in 1983–84 was 3 129 ML, virtually all being extracted from crude oil and natural gas from the Bass Strait fields. About 74 per cent of Australia's LPG production is exported (2 840 ML in 1983–84)—mainly to Japan. Domestic consumption of 1 123 ML in 1983–84 was met by 699 ML of product obtained from refineries with supply shortfalls being met by naturally occurring Bass Strait product.

Production of LPG from the Cooper Basin commenced in July 1984. Annual output from the Basin is expected to be around 1 150 ML.

North West Shelf Project

In August 1984 the first phase of the North West Shelf Project to pipe natural gas from the North Rankin field to the Pilbara, Perth and South West of Western Australia commenced operation. The final cost of construction was $2 100 million.

The North Rankin and other fields on the North West Shelf are recognised as among the largest natural gas reserves in the world. Gas is piped from 134 kilometres off-shore to a treatment plant on the Burrup Peninsula near Dampier before delivery to markets in the south-west of the State via a 1 500 kilometre pipeline. This pipeline, costing $926 million, was built by the State Energy Commission of Western Australia and was the largest project ever undertaken by the Commission. Production from the North Rankin Field, amounting to over 4 000 million cubic metres per annum, will replace that available from almost depleted smaller fields north of Perth.

Commencement of the second phase, involving the export of liquefied natural gas (LNG) overseas, is awaiting agreement between the Joint Venturers, LNG buyers and State and Federal Governments.

In terms of scale and complexity the North West Shelf Project is one of the largest energy resource projects to be undertaken in the world. It is expected to cost approximately $11 000 million to bring to its peak rate of production.

The first of the North West Shelf production platforms photographed under construction. Situated 134 kilometres off shore, it commenced operations in August 1984.

Australian Information Service
Courtesy of Woodside Petroleum

Pricing of Australian crude oil

The pricing of Australian crude oil at import parity levels is fundamental to energy policy in Australia. Crude oil is a scarce and valuable resource and the Government considers that it should be competitively priced, to ensure that its usage recognises this value. Import parity pricing is considered essential to encourage:

- conservation of liquid fuels;
- exploration and development;
- substitution by more plentiful gaseous and solid fuels; and
- the economic development of liquid fuel substitutes.

Import parity pricing provides the basis for the long-term security of supply for Australia and the continuous adaptation of the Australian economy to changing world energy prices.

The present pricing and excise arrangements are based on announcements made by the Commonwealth Government in June 1983 and April 1984. Refiners pay and producers receive the appropriate import parity prices (IPP) for all liftings of indigenously produced crude oil.

The import parity prices are currently reviewed every six months (1 January and 1 July), but more frequently if there are major changes in circumstances. The prices are based on the landed costs of Saudi Arabian light crude oil at the nearest refinery port to the producing area and then adjusted for domestic freight cost and quality differentials. The current import parity prices from 1 July 1984 are $222.54/kl ($35.36/barrel) for Bass Strait crude, $224.06/kl ($35.61/barrel) for Barrow Island, $221.47/kl ($35.19/barrel) for Cooper/Eromanga Basin, $216.05/kl ($34.33/barrel) for Jackson, $210.11/kl ($33.39/barrel) for Dongara, $229.42/kl ($36.46/barrel) for Bowen/Surat Basin, $218.73/kl ($34.76/barrel) for Blina/Sundown, $209.34/kl ($33.27/barrel) for Mt Horner, and $219.09/kl ($34.82/barrel) for Mereenie.

For projects which had reached the development stage on 1 July 1984 and new onshore projects, producers pay excise to the Commonwealth and royalty to the State (if onshore) or Commonwealth (if offshore). Excise is paid at a rate based on the annual production of the producing area and is levied as a percentage of the Bass Strait IPP. Different excise scales are applicable to oil discovered before 18 September 1975 ("old" oil) and oil discovered on or after that date ("new" oil). The rates are given in the following table.

CRUDE OIL PRODUCTION: EXCISE PERCENTAGES PAID AND PRODUCER RETURNS, AUSTRALIA

	Excise rate (Percentage of import parity price)			
Annual production range	'Old' oil		'New' oil	
Megalitres	*Marginal excise rate*	*Average excise rate*	*Marginal excise rate*	*Average excise rate*
0-50	—	—	—	—
50-100	5	2.50	—	—
100-200	15	8.75	—	—
200-300	20	12.50	—	—
300-400	40	19.38	—	—
400-500	70	29.50	—	—
500-600	80	37.92	10	1.67
600-700	87	44.93	20	4.27
700-800	87	50.19	30	7.50
Greater than 800	87	n.a.	35	n.a.

Offshore projects in 'greenfields' areas, that is offshore areas not covered by production licences granted before 1 July 1984 and the permit areas from which they were drawn, will be subject to a resource rent tax. The tax will replace existing excise and royalty arrangements.

Crude Oil Allocation Scheme

The crude oil allocation scheme was designed to stimulate the production of Australian crude oil by guaranteeing a market for this production which was then a relatively expensive source of crude oil. The present allocation scheme first came into operation in September 1971. On 17 September 1980 the then Minister for National Development and Energy announced the extension of this scheme, subject to some modifications, until 31 December 1984.

The Scheme provides for the allocation of indigenous crude oil to refiner/marketers based on their market share of most refined petroleum products sold in Australia.

An important modification made to the crude oil allocation scheme in 1980 was that from 1 January 1981, producers of crude oil who continue the sale of gas condensate (liquid petroleum produced in association with natural gas) may retain an equivalent volume of crude oil for their own use or disposal. This producers' entitlement to crude oil is however subject to the crude oil excise and import parity pricing arrangements. Condensate marketed separately from a crude oil stream is not subject to allocation and excise and is sold at free market prices.

In June 1984, the Government announced that exports of Bass Strait crude oil which are surplus to domestic refiners' requirements would continue to be permitted until December 1984 together with exports of condensate. Government approval would be required for each export cargo.

In February 1984, the Government announced that a major review of the Crude Oil Allocation Scheme would be undertaken to help in making decisions about its future. Two discussion papers have been published and an announcement of the allocation arrangements to apply in 1985 and beyond is expected shortly.

Pricing of liquefied petroleum gas (LPG)

The Commonwealth Government sets the price that the producers receive for LPG sold for automotive and traditional domestic, commercial and industrial users. Following an extensive review, new pricing arrangements came into force on 28 March 1984 and will apply until the end of March 1987. Adjustments to the wholesale price will be made on 1 October and 1 April each year on the basis of the average monthly export parity price from 1 April 1984 to the month preceding the new price date, but increases will not be allowed to exceed rises in the fuel and light component of the consumer price index for the latest six month period prior to the adjustment date. The designated price on 28 March 1984 was $244.75 per tonne, representing the export parity price on 1 March 1984. This arrangement does not apply to non-traditional commercial, industrial and petrochemical users or exports. In these areas the price is determined by commercial negotiation.

Under the excise arrangements announced in April 1980, producers of naturally occurring LPG from fields in production prior to 17 August 1977 pay excise at a rate equivalent to 60 per cent of the average return to producers on both domestic and export markets in excess of $147 per tonne. LPG from fields brought into production on or after 17 August 1977 is free from excise. Adjustments to the LPG excise rate are made on 1 April and 1 October each year.

A subsidy is paid to households and commercial and industrial users in areas without access to natural gas, and was reviewed in March 1984. Until 30 September 1984 the subsidised wholesale price will be $224.44 per tonne and subsidy rate was $20.31 per tonne. Future adjustments in the subsidised price will be made by adjusting the present price in accordance with changes in the fuel and light component of the consumer price index.

The pricing and subsidy arrangements will be reviewed early in 1987.

Oil shale

A description of the nature and location of Australian oil shale deposits is given in Year Book No. 67, page 468.

Major investigations into oil shale development are concentrated on the Condor and Rundle deposits.

A $US24 million feasibility study on the Condor project finished on 30 June 1984. The Japanese participants, Japan Australia Oil Shale Corporation (JAOSCO), now have the exclusive right until 30 June 1985 to decide on their future involvement in the project.

A three-year feasibility study on the Rundle project will be completed by early 1985. Participants are Esso Australia, Southern Pacific Petroleum and Central Pacific Minerals.

Uranium

Australia has about 30 per cent of the Western world's low-cost uranium reserves. Deposits occur in the Northern Territory, Western Australia, South Australia and Queensland.

The major use for uranium is as a fuel in nuclear reactors. It is also used for power generation in atomic energy research programmes.

Uranium was first observed in Australia in 1894 but systematic exploration did not begin until 1944 following requests from the United Kingdom and United States Governments. A number of significant deposits were identified, particularly in the Katherine/Darwin region of the Northern Territory and the Mt Isa/Cloncurry region in Queensland. This initial phase of exploration activity reached a peak in 1954.

In the period 1954-71 about 9,200 tonnes of uranium oxide concentrate was produced from five plants at Rum Jungle, Moline and Rockhole in the Northern Territory, Mary Kathleen in Queensland and Radium Hill in South Australia. Uranium requirements for defence purposes decreased in the early 1960's and uranium demand and prices fell rapidly, whereupon exploration for uranium almost came to a standstill.

A revival in exploration in the late 1960s was encouraged by the announcements in 1967 of a new export policy, designed to encourage exploration for new uranium deposits while conserving known resources for future needs in Australia. The renewed exploration activity which followed was very successful—major discoveries were found in South Australia: Beverley (1969), Honeymoon (1972), Olympic Dam (1975), and in Northern Territory: Ranger (1969), Nabarlek (1970), Koongarra (1970) and Jabiluka (1971). These and other discoveries have led to substantial additions to Australia's reasonably assured uranium resources which now total 474,000 tonnes of uranium recoverable at less than US$80 per kg U.

The Mary Kathleen mine which had ceased operations in 1963, opened again in 1976. After mining and treating sufficient ore to meet its contractual commitments, the mine was closed in 1982.

The Ranger mine was authorised under Section 41 of the Atomic Energy Act in 1979, and commercial production at a planned rate of 3,000 tonnes yellowcake (U_3O_8) per annum commenced in late 1981. Development approval for the Nabarlek deposit was granted in early 1979 and mining commenced later that year. Production at a planned rate of 1,000 tonnes U_3O_8 per annum, commenced in 1981.

Following the election of a new Government in 1983 a complete review of all aspects of Australia's policies as they relate to uranium was instituted. This process was completed in November 1983, at which time the Government announced its policy on uranium.

The policy provides for the continuing operation of the existing Ranger and Nabarlek mines in the Northern Territory and the development of the Olympic Dam copper-uranium-gold deposit in South Australia. No other uranium mines will be permitted to proceed, but existing mines and the Olympic Dam project will be allowed to negotiate new contracts.

All future exports of Australian uranium will be subject to the most stringent supply conditions to be determined following consideration of a Report prepared by the Australian Science and Technology Council on Australia's role in the nuclear fuel cycle. The Report is currently being considered by the Government. In addition, exports of Australian uranium to France will not be permitted until France ceases testing nuclear weapons in the South Pacific Region.

All uranium produced in Australia is exported in the form of yellowcake for use in nuclear reactors for the generation of electricity, and for the production of radioisotopes and radiopharmaceuticals. Australia's two producers have contracts with utilities in Japan, the Federal Republic of Germany, Republic of Korea, Finland, Sweden, Belgium, France and the USA.

Contract tonnages for the period 1977-1996 exceed 55,000 tonnes U_30_8. Exports for 1983-84 amounted to almost 3,300 tonnes U_30_8 valued at nearly $A311m.

The Australian Atomic Energy Commission (AAEC), was established as a statutory body by the Commonwealth Parliament under the *Atomic Energy Act 1953*.

The AAEC's activities are controlled by a Commission which is responsible to the Minister for Resources and Energy. *The Atomic Energy Act* provides for the Commission to consist of five Commissioners including a Chairman.

Moving in its earliest days towards the planning and construction of a nuclear research establishment at Lucas Heights near Sydney, the Commission arranged for a nucleus of scientists and engineers to obtain training and experience through overseas attachments, mainly in the United Kingdom. By the late 1950's a research and development (R&D) program had been initiated at its research establishment.

The AAEC's current nuclear program includes radioisotope production and applications, environmental science (particularly in relation to uranium mining activities), provision of support for regulatory and international operations and waste management studies. The latter involves the construction of a non-radioactive pilot plant for the manufacture of full-sized blocks of SYNROC (a synthetic rock-like material used to immobilise high level radioactive waste from reactors). The AAEC is also participating in co-operative research programs with both Japan and the UK to investigate the properties of SYNROC and its abilities to immobilise high level waste.

The programs, structure and functions of the AAEC are currently under review. Particular attention is being given to ensuring that the functions and programs of the AAEC are appropriate to national requirements.

Current expenditure by the AAEC is of the order of $35 million a year. Staff totals some 1,060 professional, technical, trade, administration and support personnel.

The AAEC participates in the activities of the Australian Institute of Nuclear Science and Engineering. The Institute, which has a corporate membership comprising the Commission and the Australian universities, is concerned with the awarding of studentships, fellowships and research grants, with the organising of conferences and with arranging the use of AAEC facilities by research workers within the universities and colleges of advanced education. The Australian School of Nuclear Technology, located at Lucas Heights, is a joint enterprise of the AAEC and the University of New South

Wales. Courses are provided regularly on such subjects as radio-nuclides in medicine, radiation protection and nuclear technology. Participants have been drawn from Australia, New Zealand, Asia, Africa, Papua New Guinea and the Pacific region.

The Atomic Energy Act is the principal Commonwealth legislation in the nuclear field. As well as being the legislative basis for the AAEC, the Act provides for Commonwealth powers over uranium and nuclear materials, it was also used as the basis for the authorisation of the Ranger Uranium Mine.

The Government's policy is to replace the Atomic Energy Act with new legislation for the AAEC, and to give effect to Australia's international nuclear non-proliferation and safeguards obligations.

For further details relating to the production of uranium in Australia see Chapter 16, Mineral Industry.

Thorium

Thorium is a radioactive mineral that is about three times as abundant as uranium, but occurs in fewer geological environments and in lower grade accumulation. Most of the world's resources occur in monazite, a complex phosphate recovered primarily for its rare-earth content. Primary thorium minerals are resistant to oxidation and form economically important place deposits as well as hard-rock deposits.

In Australia, monazite is produced from titanium-bearing mineral sands on the east and west coasts. Other thorium occurrences are known, but are uneconomic. Australia currently supplies about two-thirds of the world's monazite requirements.

Exports from Australia of thorium and thorium-containing ores require the approval of the Minister for Trade under the Customs (Prohibited Exports) Regulations.

Solar energy

Solar radiation is measured continuously on a routine basis by the Bureau of Meteorology at 28 stations throughout Australia. These stations also supply data on air temperatures, dewpoint and wind.

Like wind, and tidal and wave energy, solar energy is inexhaustible and shares with these energy sources a number of properties which make it both difficult and costly to collect, store and transform into useful work. The particular properties are low intensity, geographic, seasonal and daily variations.

The use of solar energy for domestic hot water supply is well established commercially in Australia and the solar hot water systems industry production now has a value of about $44 million per annum. With a view to industrial application, advanced collectors have been designed which can produce steam. Currently however, there appear to be few applications of solar energy which are economically attractive to industry.

The use of passive solar design principles in housing is increasing as relatively low cost passive designs are developed. In the area of electricity generation, photo-voltaics are already viable in some small-scale specialist applications, for example, in navigation and communications stations. If costs are reduced, solar electricity may be increasingly used in the future, for remote homestead or community power supplies and for pumping of water. Solar cooling is not economic at this stage owing to high capital costs and low efficiencies.

Ocean thermal energy

In Australia, there has been virtually no assessment of the potential of the ocean thermal energy source made. It has been suggested that tropical waters such as those off the Queensland coast would be suitable, but power generated from this area would be of considerable distance from the major power consumers in the south, and therefore unable to compete with coal based electricity.

Wind energy

Using data from Bureau of Meteorology wind stations, CSIRO has undertaken a continental wind assessment of Australia. In addition, a number of site specific wind resource assessments have been carried out by CSIRO and other bodies. Broadly, these studies indicate that while the bulk of the Australian inland has relatively low average windspeeds, some coastal and island localities have favourable wind energy resources, notably on the Western Australian, South Australian and Tasmanian coasts, in Bass Strait and on Lord Howe Island.

At present the use of wind energy in Australia is confined principally to mechanical windmills for water pumping and small wind electricity generators for remote areas.

It is unlikely that wind energy will be able to compete on a widespread and large scale with coal for electricity generation in Australia, but where wind resources are favourable, wind turbines could find increasing application in remote areas which currently rely on diesel fuel for electricity production.

Two imported machines in the 20-55 kW range are currently being demonstrated on Rottnest Island in Western Australia, and another imported 55 kW machine is operating at Ballarat in Victoria. At the same time, two Australian manufactured wind turbines are also being demonstrated, one 60 kW capacity machine at Fremantle in Western Australia, the second, a 16 kW machine at Wodonga in Victoria.

Geothermal energy

Most of Australia's geothermal resources are of conduction-dominated type. A most extensive and well documented study in Australia of subsurface temperatures has been made in bore-holes in the Great Artesian Basin. In this basin, about 20 per cent of indexed water bores penetrate to depths greater than 1,000 m and since geothermal gradients are generally greater than 30°C/1,000 m, it is reasonable to assume that hot water can be obtained from such aquifers. Of the total number of indexed water bores, only a very small proportion have water temperatures greater than 100°C.

Australia's geothermal resources in other basins are probably comparable with that of the Great Artesian Basin, the extrapolation of flow rates and temperatures to other sedimentary basins suggests it to be geologically reasonable. Economic and technical difficulties indicate that in the foreseeable future the potential use of our geothermal resources will be largely restricted to hot water supply, for space heating and light industrial purposes.

In Australia, it has been estimated by the Bureau of Mineral Resources (BMR) that identified (demonstrated and inferred) geothermal resources are about 1 per cent of Australia's annual primary energy consumption. Undiscovered geothermal resources however may be many orders of magnitude greater than the above estimate.

Tidal energy

Tidal energy is a dispersed energy source derived from regular fluctuations in the combined gravitational forces exerted by the moon and the sun, at any one point on the earth's surface, as the earth rotates. The mean tidal range in the open ocean is about 1 metre, but under suitable hydraulic and topographical conditions, much higher tides than this build up in places around coasts, due to resonance. Because only two commercial tidal plants exist so far in the world, relatively little is known about the possible environmental impact of large-scale utilisation. It is unlikely, however, that tidal installations would be entirely without effect on the ecological life of bays and estuaries within their area of influence due, for instance, to silting and concomitant dredging.

Around Australia there are theoretically very large amounts of tidal energy available, especially on the north-west coast where the tidal range is as great as 11 metres and where the topography is suitable. The tidal potential of this region has been the subject of a series of investigations, including one carried out in 1965 on one of the most promising sites at Secure Bay. It was concluded that a minimum of 12 years design and construction time would be required, although the cost of electricity at the site would be similar to that derived from conventional thermal stations. However, the long distances to potential markets result in a doubling of these electricity generation costs. Subsequent studies by the State Energy Commission of Western Australia have indicated that lead times and construction costs could be reduced but not sufficiently to make tidal energy economically attractive even if a suitable electricity consumer were nearby.

The likelihood of early exploitation of this resource would appear to be less than in other countries, if only because of the long distances involved in transmission to population centres. In Australia, the major consumer regions are located along coastlines where the tidal range is very small.

Biomass

Biomass includes crops, wood, agricultural and forestry residues and animal wastes. Currently only two forms of biomass are used significantly as energy resources in Australia. These are firewood and bagasse, both converted to energy by direct combustion.

Approximately 2 megatonnes of firewood are used annually in Australia, equivalent in energy terms to 82.3 petajoules, or 2.6% of Australia's primary energy demand. Production is expected to remain stable at about this level through the 1980s.

Bagasse is the fibrous residue remaining after extraction of the juice from sugar cane. It is the major fuel used in the sugar industry, providing 68.5 petajoules or 2.2% of Australia's total primary energy demand.

Biomass also has a possible use as a source of liquid fuels for transport, particularly ethanol and methanol. Technologies are commercially available for converting biomass to liquid fuels. The major impediments to its current use are that it is not competitive with conventional fuels and generally vehicle modifications are necessary for satisfactory operation.

In 1979, the CSIRO completed a survey of the potential for the production of these fuels from agricultural and forestry resources in Australia. The resources considered were both new energy crops and forest plantations, as well as the residues from existing crop and forest production. In estimating potential new crop production, it was assumed that all land with suitable climate, soil and terrain for an energy crop would be available for energy farming except land at present under crops or sown pastures. The total biomass resources considered could provide a net liquid fuels output of 460 petajoules, 65% of the energy used as liquid fuel in transport in 1977-78. This is a net figure taking into account the liquid fuel used in production. It does not take into account socio-economic considerations such as more profitable or socially desirable uses of the land available for new crops. It must be considered as an upper limit only.

Recent studies have shown that, largely as a result of the cost of production of the feedstocks, liquid fuel from biomass is at a major economic disadvantage compared to petroleum-based fuels, and is unlikely to be commercialised on a significant scale in the near future.

Electric power

Responsibility for public electricity supply rests with the State Governments which control electricity production and distribution through public authorities. The Commonwealth Government's major direct role in the electricity supply industry is its responsibility for the Snowy Mountains Scheme. Greater descriptive and historical detail about the various systems is contained in earlier issues of the Year Book.

Hydro-Electric Resources

With the exception of Tasmania, Australia is generally not well-endowed with hydro-electric resources because of low average rainfall and limited areas of high relief. Major hydro-electric potential is confined to Tasmania and the Great Dividing Range areas of Victoria, New South Wales and Queensland, with some small potential on rivers draining into the Timor Sea in Western Australia and the Northern Territory.

The practical potential of hydro-electric power in Australia has been estimated at 24,000 gigawatt hours (GWh) per year, of which about 60% has currently been developed. In 1982/83, hydro-electric generation of 12,857 GWh was down on the previous year owing to drought conditions.

At 30 June 1983 the installed hydro-electric generating capacity of 6,332 megawatts (MW) represented 23% of total installed capacity.

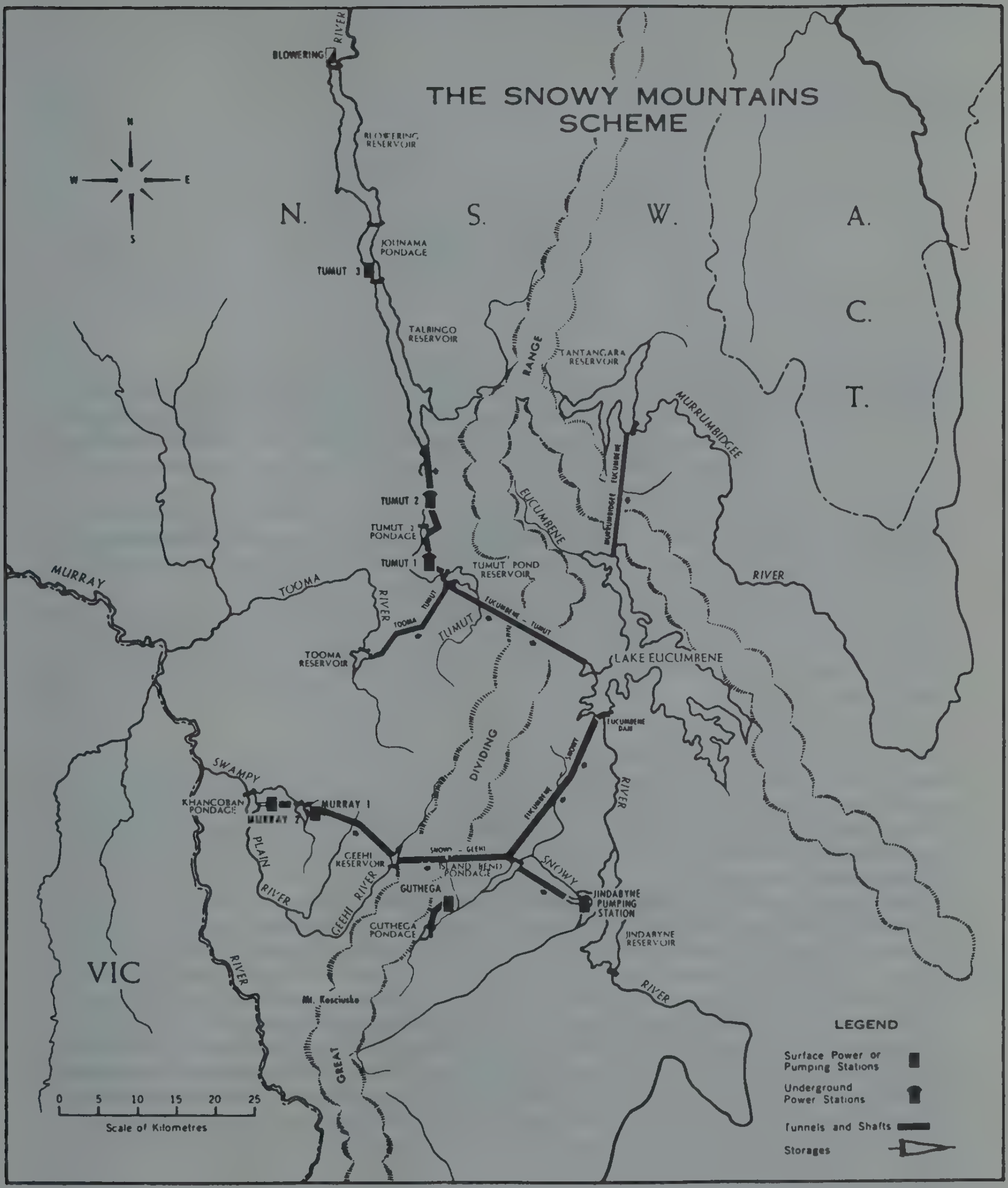
Future hydro development will be mainly limited to environmentally acceptable sites in Tasmania, and to a lesser extent North Queensland, as most of the low cost resource elsewhere has already been developed. Although hydro-electric power stations will continue to be constructed into the 1990s and probably beyond, hydro's share of total generation will decline as increasing load is met mainly by coal-fired power stations.

Snowy Mountains Hydro-Electric Scheme

The Snowy Mountains Scheme is a dual purpose complex which supplies water for generation and irrigation. It is located in south-eastern Australia, and on its completion was one of the largest engineering works of its type in the world. It impounds the south-flowing waters of the Snowy River and its tributary, the Eucumbene, at high elevations and diverts them inland to the Murray and Murrumbidgee Rivers through two tunnel systems driven through the Snowy Mountains. The Scheme also involves the regulation and utilisation of the headwaters of the Murrumbidgee, Tumut, Tooma and Geehi Rivers. The diverted waters fall some 800 metres and together with regulated flows in the Geehi and Tumut River catchments generate mainly peak load electricity for the States of New South Wales, Victoria and the Australian Capital Territory as they pass through power stations to the irrigation areas inland from the Snowy Mountains.

The operation and maintenance of the Scheme is directed by the Snowy Mountains Council which was established in 1959 following an agreement between the Commonwealth, New South Wales and Victorian Governments. The Commonwealth Government reserves 670 GWh of the Scheme's output for supply to the Australian Capital Territory, the remainder being shared between the States of New South Wales and Victoria in the ratio 2:1.

The Snowy Mountains Hydro-Electric Scheme was designed and constructed by the Snowy Mountains Authority which was established by the *Snowy Mountains Hydro-Electric Power Act 1949*. It was completed in 1974 and has an installed capacity of 3,740 MW and an annual average energy output of over 5,000 GWh. An average of 2,300 GL of water per year has become available for irrigation in the Murray and Murrumbidgee rivers as a result of the Scheme.


THE SNOWY MOUNTAINS SCHEME
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W
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N. S. W.
A. C. T.
VIC
BLOWERING
RIVER
BLOWERING RESERVOIR
JOUNAMA PONDAGE
TUMUT 3
TALBINGO RESERVOIR
RANGE
TANTANGARA RESERVOIR
MURRUMBIDGEE
EUCUMBENE
TUMUT 2
TUMUT 2 PONDAGE
TUMUT 1
TUMUT POND RESERVOIR
MURRAY
TOOMA
RIVER
TOOMA
TUMUT
TOOMA RESERVOIR
TUMUT
EUCUMBENE - TUMUT
RIVER
LAKE EUCUMBENE
EUCUMBENE DAM
DIVIDING
RIVER
SWAMPY
KHANCOBAN PONDAGE
MURRAY 1
MURRAY 2
PLAIN
RIVER
GEEHI RESERVOIR
SNOWY - GEEHI
ISLAND BEND PONDAGE
GEEHI RIVER
GUTHEGA
GUTHEGA PONDAGE
SNOWY
JINDABYNE PUMPING STATION
JINDABYNE RESERVOIR
RIVER
RIVER
Mt. Kosciusko
GREAT
0 5 10 15 20 25
Scale of Kilometres
LEGEND
Surface Power or Pumping Stations
Underground Power Stations
Tunnels and Shafts
Storages

PLATE 42

Electricity generation and transmission

The following table shows details of thermal and hydro electricity generated in Australia during recent years.

ELECTRICITY (*a*)—THERMAL AND HYDRO

Year	*Million kWh*
1977–78	86,095
1978–79	90,857
1979–80	95,910
1980–81	100,782
1981–82	104,975
1982–83	105,933

(*a*) Figures represent estimates of total electricity generated by public utilities, factories generating for their own use, and factories supplying electricity for domestic and other consumption.

NEW SOUTH WALES

Electricity Commission of New South Wales and electricity supply authorities

The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the Government railways and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except in the Snowy Mountains region.

The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities. At 30 June 1983 there were 28 retail supply authorities throughout the State, comprising 23 electricity county councils (consisting of groups of shire and/or municipal councils), 1 city council, 1 shire council, and 3 private franchise holders.

Most electricity distribution areas have been consolidated into county districts consisting of a number of neighbouring local government areas grouped for electricity supply purposes and administered by a county council comprising representatives elected by the constituent councils. Of the 175 cities, municipalities and shires in New South Wales, 172 are included in one or other of the 23 electricity county districts.

The Energy Authority of New South Wales

The *Electricity Development Act* 1945, confers broad powers on the Energy Authority to coordinate and develop the public electricity supply industry. The functions of the Authority include the promotion of the wise use of electricity, especially its use for industrial and manufacturing purposes and for primary production. Technical advice is given to retail electricity supply authorities on various aspects of their activities such as the framing of retail electricity tariffs, public lighting and the standardising of materials and equipment.

The Authority continues to administer the Rural Electricity Subsidy Scheme which terminated on 30 June 1982. Under the scheme, the rural electrical development of the State has now been virtually completed in areas where the extension of supply is economically feasible. Local electricity suppliers receive subsidies from the Authority towards the cost of new rural lines. At 30 June 1984 the Authority was committed to the payment of $46,924,963 in subsidies, of which $40,455,256 had been paid. Further details of the operation of the scheme are given in Year Book No. 56, page 956.

The Authority also administers the Traffic Route Lighting Subsidy Scheme, which provides for financial assistance to councils towards the cost of installation of improved lighting on traffic routes traversing built-up areas with the objective of reducing the incidence of road accidents at night. Since the introduction of the scheme in 1964, subsidy has been approved in respect of some 1,993 kilometres of traffic routes throughout the State.

Generation and transmission

Of the State's electrical power requirements during the year ended 30 June 1983, almost all was generated in New South Wales (89.8 per cent by thermal fired power stations, 5.9 per cent from the Snowy Mountains Hydro-Electric Authority and 0.9 per cent by other hydro-electric stations). The remaining 3.4 per cent was supplied by various sources, including interchange with other States and other small generating authorities in New South Wales.

Major generating stations. At 30 June 1983 the major power stations of the State system of the Electricity Commission of New South Wales and their nominal capacities were as follows: Liddell (Hunter Valley), 2,000 MW; Munmorah (Tuggerah Lakes), 1,400 MW; Vales Point (Lake Macquarie), 2,195 MW; Eraring, 1,320 MW; Wallerawang (near Lithgow), 1,240 MW. The total nominal capacity of the Electricity Commission's system as at 30 June 1983 was 9,851 MW. The greater part of the Commission's generating plant is concentrated within a hundred and eighty-five kilometre radius of Sydney.

Major transmission network. The retailing of electricity to 97 per cent of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 500 kV, 330 kV, 132 kV, 66 kV and some 33 kV transmission lines links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically over 650 kilometres inland.

At 30 June 1983 there were in service, 3,940 circuit kilometres of 330 kV, 7,328 kilometres of 132 kV transmission lines and 282 kilometres of 500 kV transmission lines. There were also in service 5,424 kilometres of transmission line of 66 kV and lower voltages, and 517 kilometres of underground cable. The installed transformer capacity at the Commission's 174 substations was 28,888 MVA.

Separate systems and total State installed capacity. Several local government bodies operate their own power stations and generate a portion of their requirements which is supplemented by interconnection with the system of the Electricity Commission. Of these, the more important are the Northern Rivers County Council (installed capacity 13.1 MW), the North-West County Council (15.75 MW) and the New England County Council (57 MW). The aggregate effective capacity for the whole of New South Wales systems and isolated plants was approximately 9,880 MW at 30 June 1983, while the number of ultimate consumers at this date was 2,130,945.

Future developments

Future projects include the installation of 5,280 MW of coal-fired generating plant. Two additional 660 MW units are being installed at Eraring Power Station on the central coast and will be commissioned progressively for full commercial service over the period 1983-1984. At Bayswater Power Station, which is situated in the Hunter Valley, construction has commenced on four 660 MW units. Two 660 MW units are also planned for Mount Piper Power Station which is located on the western coalfield near Wallerawang. Commissioning of the Bayswater units is planned between 1985 and 1987 with Mount Piper to follow at a later date.

Construction of a double circuit 500 kV transmission line between Eraring and Kemps Creek, west of Sydney is complete. This transmission line is initially operating at 330 kV but operation at 500 kV is planned early in 1984. A double circuit 500 kV transmission link will be constructed from Bayswater Power Station to Mount Piper Power Station and thence to Marulan where it will be interconnected with the existing transmission system between the Snowy Mountains and Sydney.

Hydro-electricity

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area (*see* Snowy Mountains Hydro-Electric Scheme, page 394). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50 MW) and Hume Dam (50 MW). In addition, there are six smaller hydro-electric installations in operation in various parts of the State. A pumped-storage hydro-electric system to produce 240 MW has been installed as part of the Shoalhaven Scheme in conjunction with the Metropolitan Water Sewerage and Drainage Board.

VICTORIA

State Electricity Commission (SEC)

The SEC is Australia's largest electricity supply authority and individual coal producer. It is a semi-government authority with the principal responsibility of generating or purchasing electricity for supply throughout Victoria. It may own, develop and operate brown coal open cuts and briquetting plants and develop the State's hydro-electric resources. It is required to meet, from its own revenue, all expenditure involved with operating its power and fuel undertakings and to provide for statutory transfers to the consolidated revenue of the State. In 1983–84 its revenue was $1,401 million. At 30 June 1984 it had total fixed assets of $6,807 million and a staff of 22,800.

The SEC was established by an Act of the Victorian Parliament in 1921 and now operates under the *State Electricity Commission Act 1958*. Since it began operating, the SEC has expanded and co-ordinated the generation, purchase and supply of electricity on a statewide basis to the stage where its system provides almost all the electricity produced in Victoria and its transmission covers almost the entire population of the State. At 30 June 1984 it distributed electricity directly to 1.39 million customers and indirectly to a further 278,500 through 11 metropolitan councils which buy power in bulk for retail distribution under franchises granted by the Victorian Government before the SEC's establishment.

Existing electricity system

The SEC Act requires the SEC to apply the natural resources of the State. Of the State's recoverable fossil fuel reserves, brown coal represents 94.6 per cent, natural gas 2.6 and oil 2.8. The SEC therefore has committed itself to increasing the proportion of total Victorian requirements met with coal-based energy.

Victoria's electricity system is based upon the State's extensive brown coal resource in the Latrobe Valley 140 to 180 km east of Melbourne in central Gippsland. It is one of the largest single brown coal deposits in the world, amounting to 108,000 megatonnes of which 35,000 are economically winnable.

The coal is young and soft with a moisture content of 60 to 70 per cent and occurs in thick seams from relatively close to the surface to a depth of several hundred metres. The coal can be won continuously in large quantities and at low cost by a specialised mechanical plant. The SEC's coal-fired power stations have been established near the coal deposits because the coal's moisture content would make the coal expensive to transport, every three tonnes of material including two tonnes of water.

The major brown coal-fired generating plants in the system are the 1,600 MW Hazelwood and 1,450 MW Yallourn 'W' power stations. Other brown coal-fired plants are Morwell (170 MW) and Yallourn 'C', 'D' and 'E' (521 MW). These stations are all located in the Latrobe Valley and generate three-quarters of the State's electricity requirement.

Other thermal stations are Jeeralang (465 MW) gas turbine station in the Latrobe Valley and Newport 'D' (500 MW) gas-fired station in Melbourne. There are hydro-electric power stations in north-eastern Victoria: Kiewa (184 MW), Dartmouth (150 MW), Eildon/Rubicon/Cairn Curran (137 MW). Victoria is also entitled to about 30 per cent of the output of the Snowy Mountains Hydro-Electric Scheme and half of the output of the Hume hydro-electric station near Albury.

The SEC's total installed generating plant capacity at 30 June 1984 was 6,827 MW, including both capacity within the State and that available to it from New South Wales. In 1983–84 electricity generated by the SEC in its thermal and hydro-electric power stations and purchased totalled 25,752 GWh.

Power station construction

Construction of the Loy Yang 'A' power station complex south-east of Traralgon in the Latrobe Valley was authorised by the Victorian Government in 1976. It is the largest single engineering project undertaken in Australia. Coal-fired, Loy Yang will provide base load electricity for the Victorian grid and almost double the State's generating capacity. The project nominally comprises two 2,000 MW power stations, Loy Yang 'A' and Loy Yang 'B' in eight 500 MW units. The first unit was due to come into service in 1984.

Transmission and distribution

The distribution of electricity throughout Victoria has been completed, except for some isolated and remote areas of the State. Main transmission is by 500, 330, 220 and 66 kV transmission lines which supply the principal distribution centres and interconnection between generating sources.

Three 500 kV transmission lines, Australia's first, and six 220 kV lines link the Latrobe Valley stations with Melbourne and the State grid while three 330 kV lines provide the interstate link, two through the Snowy scheme. Bulk distribution of power throughout the main regional areas is by 220 kV lines to terminal stations which reduce the voltage to 66 kV or 22 kV for delivery to zone substations for further distribution. Feeder lines then deliver to distribution substations which in turn reduce the voltage to 415/240 volts for reticulation to individual customers. Some big industrial concerns take power at higher voltages.

Major development of the transmission system in 1983–84 included the completion of the first and second 500 kV lines from Loy Yang power station to Hazelwood terminal station. Construction is in progress on a 220 kV line between Moorabool, near Geelong, and Ballarat. Construction is also in progress on a 500 kV line between Sydenham and South Morang to reinforce supply to the western area of the State.

QUEENSLAND

Organisations

The State Electricity Commission of Queensland's main functions are to plan and ensure the proper development and co-ordination of the electricity supply industry throughout the State; to enforce safety regulations; to control electricity charges; to raise capital for development and to administer the *Electricity Act* 1976-1982 which regulates the electricity supply industry in Queensland.

The Queensland Government has decided to amalgamate the functions of the Commission and the Queensland Electricity Generating Board. Enabling legislation is to be introduced as soon as possible, however, as an interim measure the Government has dissolved the Generating Board and appointed the Commission to perform the duties of that Board.

The Queensland Electricity Generating Board is responsible for generation and main transmission. It operates the State's major power stations, and supplies, via its statewide transmission network, energy in bulk to the seven distributing boards whose responsibility it is to distribute electricity to consumers in their respective areas. These boards are the South East Queensland Electricity Board; the South West Queensland Electricity Board; the Wide Bay—Burnett Electricity Board; the Capricornia Electricity Board; the Mackay Electricity Board; the North Queensland Electricity Board and the Far North Queensland Electricity Board.

Four of these distributing boards (the South West Queensland, the Capricornia, the North Queensland and the Far North Queensland) also operate small internal combustion stations in their respective areas.

Electricity generation, transmission and distribution

During 1983-84 over ninety-six per cent of the State's generation of 17 084 million kilowatt hours (k.W.h) was derived from coal fuelled steam power stations. Due to the low rainfall in their catchment areas, the hydro-electric stations located in North Queensland only provided 2.6 per cent of the State's electricity needs. The remainder was produced by gas turbine and internal combustion generation using light fuel oil and natural gas. In addition to this public supply authority generation, a further 176 GW.h was purchased from other producers of electricity for redistribution to customers.

At 30 June 1984 the total generating capacity of the publicly-owned stations in the State was 4,216 MW, comprising 3,596 MW of coal fired steam plant, 382 MW of hydro-electric plant, 178 MW of gas turbine plant and 60 MW of internal combustion plant.

The following table lists the regional locations, types and capacities of major publicly-owned power stations in Queensland.

QUEENSLAND POWER STATIONS—CAPACITY AND TYPE, 30 JUNE 1984

(*Source*: Department of Resources and Energy)

Location	*Type*	*Capacity (MW)*
	SOUTHERN REGION	
Swanbank A	Steam	396
Swanbank B	Steam	480
Swanbank C	Gas turbine	30
Tennyson	Steam	240
Bulimba	Steam	180
Middle Ridge	Gas turbine	60
Tarong	Gas turbine	15
Tarong	Steam	350
Wivenhoe	Hydro (pumped storage)	250
	CENTRAL REGION	
Gladstone	Steam	1,650
Gladstone	Gas turbine	14
Callide	Steam	120
Rockhampton	Gas turbine	25
	NORTHERN REGION	
Kareeya	Hydro	72
Barron Gorge	Hydro	60
Collinsville	Steam	180
Mackay	Gas turbine	34

The electricity transmission and distribution system within the State comprised 138,160 circuit kilometres of electric lines and at 30 June 1984 supplied approximately 946,700 customers. The main transmission voltages are 275 kV, 132 kV, 110 kV, 66 kV and in certain areas 33 kV and 22 kV. The single wire earth return system is used extensively in rural electrification and 40,816 kilometres of line for this system of distribution was in service at 30 June 1984.

Future development

A programme is being maintained to construct four power stations to ensure adequate electricity supply well into the next decade. The first of these that will be completed is the Wivenhoe Pumped Storage Hydro Electric project. One of its two 250 MW pump/turbine generating units has already been commissioned and the other is expected to be operating later this year.

Tarong Power Station comprising four 350 MW steam and one 15 MW gas turbine generating units is expected to be fully commissioned by November 1986. The on-line capacity of the station was increased during the year when the first 350 MW steam unit joined the previously commissioned gas turbine unit in supplying electricity to the State grid. The second and third steam units are due to be on-line by May 1985 and February 1986 respectively. Included in this project is the construction of 331 route kilometres of 275 kV transmission lines and the installation of 2 000 MV.A of transformer capacity.

The next power station due for completion will be the Callide "B" project comprising two 350 MW generating units and will require the construction of 290 route kilometres of 275 kV transmission lines and the installation of 800 MV.A transformer capacity. The first set is expected to be commissioned in March 1988 and the second set one year later.

The fourth power station in the programme, the Stanwell Power Station, will consist of four 350 MW generating units. While no final commitment has been made on the start up date of its first unit, flexibility in scheduling of work and major contracts is being maintained to allow commencement of generation by as early as March 1990.

SOUTH AUSTRALIA

Electricity Trust of South Australia

In 1946 the assets of the Adelaide Electric Supply Co. Ltd were transferred to a newly-formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the Adelaide Electric Supply Company's Acts, 1897–1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority; arrange, by agreement with other organisations which generate or supply electricity, to inter-connect the mains of the Trust with those of other organisations; and give or receive supplies of electricity in bulk.

Capacity and production

Of the total installed capacity in South Australia at 30 June 1983, the Electricity Trust operated a plant with a capacity of 2,090 MW, making it the most important authority supplying electricity in the State. There were approximately 584,000 ultimate consumers of electricity in the State, of whom 575,295 were supplied directly and approximately 9,200 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne (240 MW), Port Augusta Playford 'A' (90 MW) and Playford 'B' (240 MW), and Torrens Island (1,280 MW). The Trust also operates a turbo-generator station at Dry Creek (156 MW), a small station at Port Lincoln (9 MW), and one at Snuggery (75 MW).

The two main fuels used by the Trust are sub-bituminous coal from Leigh Creek for the Playford power stations at Port Augusta and natural gas from the Gidgealpa-Moomba field for the Torrens Island and Dry Creek stations.

Future developments

To meet future demands, a Northern Power Station comprising two 250 megawatt turbo-generators and boiler units is being constructed on a site near the existing power station at Port Augusta and will be commissioned before 1987.

The preferred strategy of the Advisory Committee on Future Electricity Generation Options is:

- to implement an opportunity energy interconnection with the Victorian NSW system, for commissioning in 1989;
- to review in late 1985 the economics and need for an interim supply source in 1990. The review to be based on a third unit at the Northern Power Station, contract supply from Victoria, or conversion of 400 megawatts at Torrens Island to coal firing; or
- to implement a local lignite-fired station when feasible and required (on current indications, 1993). The South Australian Government is currently considering these options.

WESTERN AUSTRALIA

State Energy Commission of Western Australia

On 1 July 1975 the Government of Western Australia combined the State Electricity Commission and the Fuel and Power Commission to form a new organisation known as the State Energy Commission of Western Australia. The Commission is specifically charged with the responsibility for ensuring the effective and efficient utilisation of the State's energy resources and for providing its people with economical and reliable supplies of electricity and gas.

The Commission owns and operates four major thermal power stations. These are located at Kwinana, Muja, South Fremantle and Bunbury and all use local coal to produce electricity. Kwinana power station also has the capacity to burn oil or natural gas. A small hydro-electric station is situated at Wellington Dam near Collie, and there are gas turbine generating units at Geraldton and Kwinana.

Power from the four major stations is fed to an interconnected grid system which supplies the electricity needs of 98 per cent of the State's population. The grid services the metropolitan area and the South West and Great Southern areas, including an area extending eastwards to Kalgoorlie and northwards as far as Kalbarri, some 100 km north of Geraldton. Kalgoorlie was brought into the south-west grid system in 1984 following construction of a 680 km transmission line from Muja, one of the longest radial feed lines constructed in Australia.

In areas too remote to utilise the interconnected grid system, diesel power stations are used. The Commission owns and operates 10 of these diesel stations. Of the remaining stations, 22 are owned by local authorities but operated by the Commission under the Country Towns' Assistance Scheme (CTAS).

The CTAS was introduced when steeply rising oil prices in the 1970s caused dramatic increases in country electricity prices. Under this scheme, the Commission operates the electricity undertakings but ownership remains with the shires which are required to raise the funds needed for capital works, including generating plant, distribution extensions and upgrading.

In areas supplied with power through the interconnected grid, or Commission owned and/or operated diesel power stations, uniform tariffs apply.

At 30 June 1983 the Commission's generating capacity from its interconnected grid system was 1782 MW, while the capacity of its supply system in country areas was 98.58 MW.

TASMANIA

A considerable part of the water catchment in Tasmania is at high level. The establishment of numerous dams has created substantial artificial storage which has enabled the State to produce energy at a lower cost than elsewhere in Australia and in most other countries. Another factor contributing to the low cost is that rainfall is distributed fairly evenly throughout the year with comparatively small yearly variations. Abundant and comparatively cheap supplies of electricity played an important role in attracting industry to Tasmania. For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, *see* Year Book No. 39, pages 1192–3.

Hydro-Electric Commission

The Commission was created in 1930, taking over the activities of the Hydro-Electric Department and the existing small hydro-electric installations. Development initially concentrated on hydro-electric generation feeding into a State-wide power grid (King Island from 1951 and Flinders Island from 1968 are outside the grid and are supplied by diesel generators).During 1967 the construction of a substantial oil fired thermal station with a capacity of 240 MW was approved, as a supplement to the continuing hydro development programme.

Output and capacity of hydro-electric system

At 30 June 1984 the generating system had an installed capacity of 1940 MW. The approved remaining works at the Pieman River Power Development, scheduled for completion in 1986, will increase the system installed capacity to 2171 MW.

Work began in 1982-83 on the Gordon River Power Development Stage 2 but was halted by the Federal government refusing consent for the project to proceed.

The Hydro-Electric Commission in August-September 1983 began work on two smaller hydro power schemes in Western Tasmania. These are the King River Power Development scheduled for completion in mid 1990 and the Anthony Power Development which is expected to be commissioned 18 months later. They will add about 236 MW to the installed capacity of the system.

AUSTRALIAN CAPITAL TERRITORY

The supply authority is the A.C.T. Electricity Authority which took over the functions of the Canberra Electric Supply Branch, Department of the Interior, on 1 July 1963. Supply was first made available in Canberra during 1915 and was met from local steam plant. Connection to the New South Wales interconnected system was effected in 1929. The Authority's electricity supply requirements are met by a Snowy Mountains reservation of 670 GWh and the balance is provided by the Electricity Commission of New South Wales. The locally-owned plant consists of 3 MW diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1984 was 87,928. During the year 1983–84 the bulk electricity purchased was 1,677.311 GWh and the system maximum demand was 465.9 MW.

NORTHERN TERRITORY

The Northern Territory Electricity Commission is a Statutory Authority operating under the *Northern Territory Electricity Act* 1978 (as amended to date), with responsibility for generation, distribution, transmission and sale of electricity in the Northern Territory. The Commission's responsibilities also include electrical safety and inspections.

In Darwin, the major electricity supply source is Stokes Hill Power Station, with an installed capacity of 141 MW, and standby gas turbines are located at Berrimah and Snell Street, with a combined capacity of 40 MW.

In Alice Springs, the Territory's second largest town, the power is generated at Ron Goodin Power Station with a capacity of 42.2 MW, of which 26 MW either is operating on gas fuel or is converted to gas operation. Other Territory centres where power is generated by the Northern Territory Electricity Commission are diesel generating stations using distillate fuel.

A proposal to pipe gas from the Amadeus Basin near Alice Springs to Darwin is currently being investigated.

If accepted, this proposal will mean that those towns located on the Stuart Highway will change to gas fuel. These are: Tennant Creek with an installed capacity of 9.6 MW, Katherine with an installed capacity of 14.4 MW, and the proposed power station for Channel Island.

Many small communities in the Territory generate their own power using diesel fired generating sets. While the Department of Transport and Works presently has the responsibility for these power stations, it is proposed that this responsibility be transferred to the Northern Territory Electricity Commission.

Electricity and gas establishments

The census of electricity and gas industries covers distribution as well as production and is conducted as a component of the ABS's integrated economic statistics system. This system has been developed so that data from each industry sector conform to the same basic conceptual standards thereby allowing comparative analysis between and across different industry sectors. The results of this census are therefore comparable with economic data collections undertaken annually for the mining and manufacturing industries and periodically for the retail and wholesale trade, construction, transport and selected services industries.

The following table shows a summary of operations of electricity and gas establishments for 1982–83. Further details are available in the publication *Electricity and Gas Establishments: Details of Operations, Australia, 1982–83* (8208.0)

ELECTRICITY AND GAS ESTABLISHMENTS—SUMMARY OF OPERATIONS, 1982–83

State or Territory	Establishments at 30 June	Employment at 30 June			Wages and salaries ($'000)	Turnover ($'000)	Stocks		Purchases, transfers in and selected expenses ($'000)	Value added ($'000	Fixed capital expenditure less disposals ($'000)
		Males (No.)	Females (No.)	Total (No.)			Opening ($'000)	Closing ($'000)			
New South Wales											
Electricity	34	27,829	2,818	30,647	661,855	3,732,051	281,875	371,583	2,097,975	1 723,785	920,384
Gas	22	2,501	568	3,069	54,086	322,761	24,632	34,577	194,385	138,322	24,070
Queensland											
Electricity	11	11,363	1,455	12,818	256,848	1,454,072	75,708	124,262	850,388	652,238	598,416
Gas	8	609	114	723	11,385	75,831	6,833	6,195	41,615	33,579	7,514
Other States and Territories (*a*)											
Electricity	40	36,268	2,977	39,245	780,757	3,289,702	172,191	174,279	1,341,771	1,950,017	1,433,784
Gas	7	5,903	889	6,792	140,928	759,480	27,248	31,349	309,483	454,096	448,818
Australia											
Electricity	85	75,460	7,250	82,710	1,699,460	8,475,825	529,774	670,124	4,290,134	4,326,040	2,952,584
Gas	37	9,013	1,571	10,584	206,399	1,158,072	58,713	72,121	545,483	625,997	480,402

(*a*) Includes Victoria, South Australia, Western Australia, Tasmania, Northern Territory and Australian Capital Territory. At the end of June 1983 the number of establishments were: Victoria electricity 14, gas 1; South Australia electricity 12, gas 2; Western Australia electricity 9, gas 2; Northern Territory electricity 2 and Australian Capital Territory electricity 1, gas 1.

National Energy Survey

In June 1983 the ABS conducted a survey throughout Australia to obtain information relating to the numbers and types of selected domestic appliances held by households. Details were also sought from the relevant energy supplying authorities on the consumption of electricity and reticulated gas by households for the most recent 12 month period available.

The survey was conducted as part of the regular ABS population survey, which is based on a multi-stage area sample of private dwellings (houses, flats, etc.) and non-private dwellings (hospitals, hotels, motels, etc.) and covers about two-thirds of one per cent of the population of Australia.

For the purposes of this National Energy Survey certain types of dwellings were excluded, such as non-private dwellings, caravan parks, dwellings occupied by more than one household, and dwellings occupied by diplomatic personnel and by overseas residents. The survey identified a small number of households without electricity, and these were also excluded.

For each State a magnetic tape file is now available containing information from the National Energy Survey. An example of consumption data available is shown in the following table on Average Consumption of Reticulated Gas and Electricity by Households, by State and Capital City.

Further data relating to the survey can be found in ABS publications listed in the Bibliography at the end of this chapter.

AVERAGE CONSUMPTION OF RETICULATED GAS AND ELECTRICITY BY HOUSEHOLDS, BY STATE AND CAPITAL CITY(a), 1982–83

	Households with reticulated gas			*Households without reticulated gas*			
		Average annual consumption					
	Number of households	*Gas*	*Electricity*	*Number of households*	*Average annual consumption of electricity*	*Total households*	*Average annual electricity consumption*
	('000)	(MJ)	(MJ)	('000)	(MJ)	('000)	(MJ)
New South Wales	391.3	16,059	16,807	1,370.9	26,746	1,762.2	24,539
Sydney	*327.7*	*15,438*	*17,027*	*809.4*	*27,023*	*1,137.1*	*24,143*
Victoria	824.1	53,688	17,146	469.8	28,076	1,293.9	21,115
Melbourne	*707.1*	*54,620*	*17,437*	*214.7*	*27,761*	*921.8*	*19,842*
Queensland	102.4	9,570	14,314	678.0	23,275	780.5	22,099
Brisbane	*93.5*	*9,559*	*14,414*	*273.4*	*24,210*	*366.9*	*21,714*
South Australia	218.1	25,801	15,036	245.5	27,494	463.6	21,632
Adelaide	*206.9*	*25,861*	*15,105*	*128.2*	*28,245*	*335.1*	*20,132*
Western Australia	135.0	16,671	12,521	300.6	17,689	435.6	16,087
Perth	*129.4*	*16,796*	*12,607*	*188.8*	*18,146*	*318.2*	*15,893*
Tasmania (*b*)						138.0	33,861
Hobart (*b*)						*53.7*	*34,941*
Northern Territory (*b*)						33.3	27,295
Australian Capital Territory (*b*)						74.0	37,936

(*a*) Refers to Capital City Statistical Division. (*b*) Reticulated gas consumption not available.

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National Energy Survey: Household Appliances, Facilities and Insulation, Australia, June 1983 (8212.0).
National Energy Survey: Household Energy Consumption, Australia, June 1982–83 (8213.0).

Other Publications

Other organisations which produce statistics in this field include the Department of Resources and Energy, the Joint Coal Board, the Australian Institute of Petroleum, the Electricity Supply Association of Australia and the Bureau of Mineral Resources, Geology and Geophysics. State Government departments and instrumentalities also are important sources of energy data, particularly at the regional level, while a number of private corporations and other entities operating within the energy field also publish or make available a significant amount of energy information.

CHAPTER 19

HOUSING AND CONSTRUCTION

This chapter gives details of: the characteristics of dwellings obtained from censuses, government activities in the field of housing, financial arrangements associated with the erection or purchase of homes, a summary of building activities, summary of construction (other than building) activities, and summary of construction industry statistics.

Details of some other Government housing and accommodation assistance are provided in Chapter 9 'Social Security and Welfare' including Aged or Disabled Persons Homes, Handicapped Persons Assistance, Homeless Persons Assistance, and Youth Services Scheme.

HOUSING

Census dwellings

Further information on dwellings obtained from censuses is available in the detailed tables of the publications issued for each individual census. A list of the 1981 Census publications is shown in the ABS *Catalogue of Publications, Australia* (1101.0). The most relevant 1981 census publication is *Summary Characteristics of Persons and Dwellings* (2435.0–2443.0). More detailed dwellings information is available on microfiche. Tables are listed in the *Catalogue of 1981 Census Tables* (2139.0).

At each census of the population, in addition to the questions relating to personal particulars, there have been a number of questions relating to dwellings. A 'dwelling' is defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building, and includes, in addition to houses and self-contained flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. This section contains particulars of such information on dwellings as is available from the 1981 Census, together with information from earlier censuses.

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1947 to 1981. Occupied dwellings are classified into 'private' and 'non-private' dwellings.

Private dwellings were classified by the census collector for the 1981 Census; collectors allocated each dwelling to one of the following categories:

Separate house
Semi-detached house
Row or terrace house
Medium density housing
Flat over three storeys
Caravan, houseboat, etc.
Improvised home
House or flat attached to a shop, office, etc.

Non-private dwellings include hotels, motels, boarding houses and hostels, educational, religious and charitable institutions, hospitals, defence and penal establishments, caravan parks, staff barracks and quarters, etc.

An unoccupied dwelling is defined as a structure built specifically for private living purposes and which is habitable though unoccupied at the time of the Census. The total number of unoccupied dwellings shown for any area does not represent the number of vacant dwellings available for sale or renting.

DWELLINGS(*a*): AUSTRALIA, CENSUSES, 1947 TO 1981

Census	Occupied			
	Private	Non-private	Total	Unoccupied
1947	1,873,623	34,272	1,907,895	47,041
1954	2,343,421	36,932	2,380,353	112,594
1961	2,781,945	35,325	2,817,270	194,114
1966	3,155,340	33,917	3,189,257	263,873
1971	3,670,553	24,006	3,694,559	339,057
1976	4,140,521	21,543	4,162,064	431,200
1981	4,668,909	22,516	4,691,425	469,742

(*a*) Excludes dwellings occupied solely by Aboriginals before 1966.

The total number of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1976 and 1981 were as follows:

DWELLINGS: CENSUSES, 1976 AND 1981

State or Territory	Census 30 June 1976		Census 30 June 1981	
	Occupied(*a*)	Unoccupied	Occupied(*a*)	Unoccupied
New South Wales	1,499,001	152,960	1,669,596	153,251
Victoria	1,126,304	119,592	1,243,453	124,522
Queensland	602,426	62,686	703,964	83,366
South Australia	392,253	39,768	433,841	42,407
Western Australia	339,105	34,064	405,999	42,100
Tasmania	122,573	15,786	136,269	17,765
Northern Territory	23,270	2,292	29,563	2,368
Australian Capital Territory	57,132	4,052	68,740	3,963
Australia	**4,162,064**	**431,200**	**4,691,425**	**469,742**

(*a*) Includes non-private dwellings.

Commonwealth Government and Housing

Commonwealth Government activities in the housing field have, in the main, included the provision of financial assistance to State Governments under various agreements; assistance to first home buyers under the former Home Savings Grant and the Home Deposit Assistance Schemes and the current First Home Owners Scheme; financial assistance to defence (and eligible ex-service) personnel in the erection and purchase of homes; the operations of the Housing Loans Insurance Corporation; assistance in the provision of accommodation for the aged, Aboriginals and other groups in need and the provision of housing in the Territories. The Federal Government is also in the process of introducing a new program known as the Local Government and Community Housing Scheme, and incorporating this program, the Mortgage and Rent Relief Scheme and Crisis Accommodation Program within the Commonwealth-State Housing Agreement.

Home Deposit Assistance Scheme

Replacement of the Home Savings Grant Scheme by the *Home Deposit Assistance Scheme* was announced in March 1982 and received royal assent on 2 June 1982. While applications have not been accepted since August 1982, under the Home Savings Grant, a small number of applications remain to be processed following the determination of appeals and the provision of additional information. Expenditure on the Home Savings Grant in 1983–84 was $2 million. The Home Deposit Assistance Scheme relates to first homes acquired on or after 18 March 1982 and up to 30 September 1983. This Scheme was income tested to provide direct assistance to low and moderate income earners. Grants are paid on the basis of $1 for each $1 saved over a two year period and held in an acceptable form. There is no restriction on the age, sex, or marital status of applicants or the number of persons making a joint application. The home can be either newly constructed or an established home, home unit or flat. The savings requirement was removed for those homes acquired between 1 August and 30 September 1983. The following table sets out the operations of the Home Deposit Assistance Scheme during 1983–84.

HOME DEPOSIT ASSISTANCE ACT 1982: OPERATIONS 1983–84

State	*Enquiries*	*Applications received*	*Applications approved*	*Grants approved*	*Amount paid*
				($m)	($m)
New South Wales	48,316	9,788	9,471	23.49	24.17
Victoria	65,101	11,716	12,344	30.49	31.83
Queensland	35,197	6,268	6,410	15.76	15.66
Western Australia	28,938	4,630	4,676	11.90	12.14
South Australia	21,803	3,544	3,738	9.03	9.03
Tasmania	10,527	1,209	1,296	3.24	3.24
Northern Territory	818	339	322	0.75	0.75
Australian Capital Territory	7,200	653	608	1.49	1.57
Australia	**217,900**	**38,147**	**38,865**	**96.15**	**98.39**

First Home Owners Scheme

The First Home Owners Scheme was introduced on 1 October 1983. Applications for assistance under the *First Home Owners Act* 1983 may be made by persons who contract to buy or build or who commence constructing their first home in Australia, on or after 1 October 1983. There is no restriction on the marital status or age of the applicant. The home must be intended as the applicant's principal place of residence. At least one applicant must be an Australian citizen or must have the right to reside here permanently. Applicants cannot have owned a home in Australia previously, received assistance under the First Home Owners Scheme, or a grant under the Home Savings Grant Scheme or Home Deposit Assistance Scheme.

An applicant without dependent children may receive up to $5,000 in assistance over five years. An applicant with one dependent child may receive assistance up to $6,500 over five years. An applicant with two or more dependent children may receive assistance up to $7,000 over five years. A dependent child includes a child born or adopted up to 11 months after home acquisition and also includes a student aged 16-25. All assistance is non-repayable and tax-free.

The amount of assistance payable relates directly to the amount of taxable income of all applicants, including breadwinner and spouse. People acquiring their first home after 1 October 1983 and before 22 August 1984 are generally subject to an income test on their taxable income for the year before home acquisition. If requested by the applicant, income for the current financial year may be tested. New arrivals will be tested against income in the first full year as a taxpayer.

Income limits on taxable income for a home acquired after 1 October 1983 and before 22 August 1984 are:

- full assistance for incomes up to $24,300;
- partial assistance for incomes up to $27,900;
- no assistance is payable on incomes over $27,900.

For people buying their first home on or after 22 August 1984, new income limits will apply:

- full assistance for sole applicants without dependent children for income up to $10,000. For incomes over $10,000 assistance is reduced until at $13,950 no assistance is payable;
- for all other applicants maximum assistance will be payable where income does not exceed $20,000, with assistance phasing out altogether at $27,900.

MAXIMUM AVAILABLE ASSISTANCE AND OPTIONS ARE:

	Sole Applicant No Dependent Children	*Couple or Sole Applicant with 2 or more Dependent Children*
Benefit Options	*1983–84 Taxable Income $10,000*	*1983–84 Taxable Income $20,000*
	$	$
Option 1		
Subsidy over 5 years	5,000	7,000
Option 2		
Subsidy over 5 years	3,000	4,500
Lump sum	1,500	2,000
Option 3		
Subsidy over 5 years	1,750	2,750
Lump sum	2,500	3,500

The subsidy is paid monthly, generally over five years, and into a financial institution loan account. The lump sum is paid with the first monthly payment or, where requested, by early direct payment for deposit assistance or for settlement.

During the five year subsidy period the home must continue to be the applicant's principal place of residence. The subsidy will cease upon the sale of the home, but may recommence if a subsequent home is acquired within 12 months of the sale of the first home.

Details of the First Home Owners Scheme are available in a leaflet *How you can get up to $7,000 towards your first home* (2nd Edition—September 1984) and can be obtained through the Department of Housing and Construction or from savings institutions and estate agents.

The following table sets out the operations of the scheme from 1 October 1983 to 30 June 1984.

FIRST HOME OWNERS ACT 1983: OPERATIONS 1983–84

State	*Enquiries*	*Applications Received*	*Applications Approved*	*Grants Approved*	*Amount Paid*
	No	No	No	($m) (*a*)	($m)
New South Wales	148,087	22,325	13,626	66.90	32.71
Victoria	138,273	24,108	13,183	63.25	33.80
Queensland	104,160	15,986	10,958	53.62	28.62
Western Australia	102,726	13,571	7,240	36.24	19.90
South Australia	45,500	8,511	6,207	29.96	15.99
Tasmania	25,452	3,324	2,192	10.65	5.87
Northern Territory	5,709	841	552	2.60	1.41
Australian Capital Territory	31,239	2,379	1,292	6.28	3.11
Australia	**601,146**	**91,045**	**55,250**	**269.50**	**141.41**

(a) Amount approved for payment over 5 years.

COMMONWEALTH GOVERNMENT—STATE HOUSING AGREEMENTS

1981 Housing Agreement (Schedule 1 to the *Housing Assistance Act* 1981)

This Agreement between the Commonwealth, the six States and the Northern Territory was planned to operate for the five years from 1 July 1981 to 30 June 1986. However, the Commonwealth Government sought, and each State and the Northern Territory agreed, to negotiate a new Agreement to operate from 1 July 1984 for a period of ten years. Financial assistance under the 1981 Agreement comprised 'untied' loans, grants earmarked for housing for pensioners and Aboriginals and 'untied' grants. Each State decided on the allocation of 'untied' funds between home purchase and rental housing assistance and was required to match these funds on a $1 for $1 basis with funds provided from its own resources. Commonwealth loans to the States are repayable over 53 years at an annual interest rate of 4.5 per cent.

The Commonwealth guaranteed a minimum level of funding of $200 million for each year of the 1981 Agreement. Additional funding for each year was determined in the Budget context. Total funding under the Agreement in 1983–84 was $500 million: $146 million in 'untied' loans and the remainder as grants, of which $32 million was allocated for housing for pensioners, $52 million for housing for Aboriginals and $270 million was 'untied'. In addition, since 1982–83 each State has been permitted to nominate additional funds for public housing from its Works and Housing Program and a total of $227.1 million was nominated by the States in 1983–84. These additional funds were provided at concessional Commonwealth State Housing Agreement loan terms and conditions i.e. interest rate of 4.5 per cent with principal repayable over 53 years.

1984 Housing Agreement

The new 1984 Agreement incorporates revised principles which focus on alleviating housing-related poverty and, as far as possible, providing housing assistance fairly between tenures.

Total funding under the new 1984 Agreement in 1984–85 is $623.3 million, comprising $495 million in 'untied' grants, $35 million for pensioners, $52 million for Aboriginals and the balance of $41.3 million for programs not previously included in housing Agreements. Individual allocations are $21.7 million for the Mortgage and Rent Relief Scheme, $12.6 million for a new Crisis Accommodation Program and $7.0 million for a new Local Government and Community Housing Program. States are again able to nominate additional funds for public housing on concessional terms subject to their matching in 1984-85, $450 million of 'untied' Commonwealth assistance on a dollar for dollar basis from their own resources.

Home Purchase Assistance

Funds available in the Home Purchase Assistance Account, comprising Commonwealth funds, revolving funds arising from the operation of previous home purchase programs and State funds, are used principally to make loans to co-operative housing societies and approved State lending authorities for on-lending to home purchasers. Under the 1981 Housing Agreement the annual interest rate charged by a State to societies and approved lending authorities was to be not less than 5 per cent per annum in the first full financial year, increasing by 0.5 per cent per annum until a rate equivalent to 1 per cent below the current Commonwealth Savings Bank rate for housing loans was reached, and thereafter varying with movements in this rate. Eligibility conditions were set by each State, but loans could only be made to those who could not obtain mortgage finance on the open market, or from other sources. Provision was made in the Agreement for a number of flexible lending practices, such as escalating interest loans with income geared beginnings. Features of the new 1984 Agreement include the introduction of income related loan repayments and rental-purchase arrangements.

Rental Housing Assistance

Available funds, comprising Commonwealth funds, internally generated funds arising from the operation of rental housing programs and State contributions, are used principally for the provision of rental housing by State housing authorities but may be used for other purposes such as urban renewal, funding of voluntary housing management groups, and allocations to local government bodies to provide rental housing. Under the 1981 Agreement each State determines eligibility for rental housing subject only to the condition that assistance is directed to those most in need. The level of rent is also fixed by each State and under the 1981 Agreement a policy of progressive movement to full market rents over the life of the Agreement applied in each State. Rental rebates were granted to those tenants who could not afford to pay the rent fixed.

Each State determined its own policy on sales of rental dwellings but all sales were to be at market value or replacement cost and on the basis of a cash transaction. Home purchase assistance funds could be used to finance the purchase of rental dwellings.

Under the new Agreement, eligibility has been widened to include all groups in the community and public rents are to be determined on the basis of the cost provisions of public rental housing.

Housing Agreement (Service Personnel)

Prior to 30 June 1971, housing for service personnel was provided under the terms of the 1956–1966 Housing Agreement which, in the main, was concerned with public housing and which expired on that date. With effect from 1 July 1971, separate agreements have been concluded between the Commonwealth and State Governments to provide for the construction of dwellings for allotment to service personnel and for improvements to existing accommodation occupied by them. Programs are negotiated annually and the full capital cost is made available by the Commonwealth in repayable, interest-bearing loans to the States.

1981 HOUSING AGREEMENT: HOUSING FUNDS 1982–83

	N.S.W.	*Vic.*	*Qld*	*W.A.*	*S.A.*	*Tas.*	*N.T.*	*Total*
			($'000)					
Commonwealth loans to States for housing—								
Rental Housing Assistance .	32,208	36,333	–	6,492	4,833	7,896	–	87,762
Home Purchase Assistance Program	13,804	–	15,131	6,492	15,000	511	7,300	58,238
Commonwealth Grants to States—								
Pensioners—								
Rental Assistance . . .	12,171	7,371	5,183	2,731	3,080	1,009	500	32,000
Aboriginal—								
Rental Assistance . . .	9,088	2,527	6,626	7,222	3,815	518	4,404	34,200
Untied—								
Rental Assistance . . .	36,826	28,818	13,819	10,477	15,288	4,556	8,038	117,822
Untied Home Purchase Assistance	–	–	–	–	–	2,889	–	2,889
Housing Agreement (Service personnel) loans (*a*) . .	4,610	467	2,440	746	–	19	–	8,282

(*a*) All loans were for upgrading of existing dwellings.

1981 HOUSING AGREEMENT: NUMBER OF DWELLINGS PROVIDED IN 1982–83

	N.S.W.	*Vic.*	*Qld*	*W.A.*	*S.A.*	*Tas.*	*N.T.*	*Total*
Rental Housing Assistance Program—								
Commenced	2,972	2,652	1,101	823	1,549	667	586	10,350
Completed	1,867	1,525	1,031	824	1,569	556	587	7,959
Under construction at 30 June 1983	2,442	1,948	400	193	1,070	412	370	6,835
Purchased	109	268	234	6	795	29	–	1,441
Sold	199	109	96	150	182	75	97	908
Home Purchase Assistance Program—								
Loans approved for purchase—								
New	582	1,538	596	5(*a*)	278	8(*a*)	625	8,099
Other	545		1,126	456(*a*)	1,974	393(*a*)		
New construction—								
Approved	162	238	638	157(*a*)	523	150(*a*)	341	2,209

(*a*) Excludes loans provided through private finance institutions with Government interest subsidy.

1981 HOUSING AGREEMENT: HOUSING FUNDS 1983–84

	N.S.W.	*Vic.*	*Qld*	*W.A.*	*S.A.*	*Tas.*	*N.T.*	*Total*
			($'000)					
Commonwealth loans to States for housing—								
Rental Housing Assistance	32,530	36,452	–	7,765	–	5,876	–	82,623
Home Purchase Assistance Program	13,940	–	16,137	5,176	18,865	1,959	7,300	63,377
Commonwealth Grants to States—								
Pensioners—Rental Assistance	11,897	7,793	5,598	2,684	2,662	866	500	32,000
Aboriginal—Rental Assistance	12,345	3,417	10,346	10,017	5,595	696	9,584	52,000
Untied—Rental Assistance	86,678	67,991	30,100	24,136	35,186	10,961	11,295	266,347
Untied—Home Purchase Assistance	–	–	–	–	–	3,653	–	3,653
Housing Agreement (Service personnel) loans (*a*)	2,597	–	2,559	134	9	–	–	5,299

(*a*) All loans were for upgrading of existing dwellings.

Rental Assistance for Pensioners, Aboriginals and Other Persons in Need

From 1 July 1981, grants have been provided to the States and the Northern Territory for rental housing assistance for pensioners, Aboriginals and other persons in need under the 1981 Housing Agreement. In previous years, such grants were provided under separate arrangements, as described in earlier issues of the Year Book.

Grants may be used for purposes other than construction of housing, e.g. leasing from the private sector.

To 30 June 1983, grant payments earmarked for pensioners totalled $207.2 million. The number of units provided to 30 June 1983 amounted to 12,505.

Earmarking of grants for Aboriginal housing commenced in 1979-80 with $21.1 million being paid in 1979-80, $22.1 million in 1980-81 and $34.2 million in 1981-82 and 1982-83. During those four years 2,561 dwellings were programmed for in the six States, including the upgrading of existing dwellings.

Under the new 1984 Housing Agreement provision is made for specific housing assistance including rental housing assistance for pensioners and Aboriginals.

RENTAL ASSISTANCE TO PENSIONERS, ABORIGINALS AND OTHER PERSONS IN NEED

		N.S.W.	*Vic.*	*Qld*	*W.A.*	*S.A.*	*Tas.*	*N.T.*	*Total*
Number of units provided									
1978–79	Pensioners . . .	460	230	173	77	81	26	—	1,047
1979–80	Pensioners . . .	652	246	220	150	284	50	n.a.	n.a.
	Aboriginals . . .	136	58	202	118	44	20	n.a.	n.a.
1980–81	Pensioners . . .	540	275	208	137	342	59	n.a.	n.a.
	Aboriginals . . .	140	51	176(*a*)	117	47	14	n.a.	n.a.
1981–82	Pensioners . . .	324	250	220	135	591	34	n.a.	n.a.
	Aboriginals . . .	128	50	175	453(*b*)	76	19	n.a.	n.a.
1982–83	Pensioners . . .	481	223	284	135	(*c*)	49	n.a.	n.a.
	Aboriginals . . .	173	56	131	90	66	21	n.a.	n.a.
Grants Paid					($'000)				
1978–79	Pensioners . . .	5,695	3,388	2,050	1,086	1,343	438	—	14,000
1979–80	Pensioners . . .	12,132	7,186	4,495	2,361	2,856	970	1,590	31,590
	Aboriginals . . .	6,000	2,000	6,100	4,000	1,500	400	1,060	21,060
	Untied	16,410	13,045	5,105	4,710	7,495	3,235	2,650	52,650
1980–81	Pensioners . . .	12,421	7,409	4,790	2,459	2,945	976	1,650	32,650
	Aboriginals . . .	6,300	2,100	6,400	4,200	1,600	400	1,100	22,100
	Untied	17,070	13,570	5,310	4,900	7,790	3,360	2,750	54,750
1981–82	Pensioners . . .	12,430	7,447	5,009	2,589	3,033	992	500	32,000
	Aboriginals(*d*) .	9,087	2,522	6,628	7,225	3,810	527	4,401	34,200
	Untied	15,570	12,375	4,845	4,465	7,110	3,070	2,565	50,000
1982–83	Pensioners . . .	12,171	7,371	5,138	2,731	3,080	1,009	500	32,000
	Aboriginals(*d*) .	9,088	2,527	6,626	7,222	3,815	518	4,404	34,200
	Untied	36,826	28,818	13,819	10,477	15,288	7,445	8,038	120,711

(*a*) In addition, 18 blocks of land were purchased. (*b*) Includes upgrading of 378 existing dwellings. (*c*) From July 1982 all earmarked grants for pensioners were used to subsidise rental housing operations in South Australia. (*d*) After 30 June 1981, includes the States Grants for Aboriginal housing program previously administered by the Department of Aboriginal Affairs.

Defence Service Homes

The *Defence Service Homes Act* 1918 assists certain former and serving members of the Defence Force to acquire a home on concessional terms.

The Defence Service Homes Corporation is, subject to the directions of the Minister for Veterans' Affairs, responsible for the administration of the Defence Service Homes Act.

Persons eligible for assistance under the Act include members of the Australian forces and nursing services enlisted or appointed for or employed on active service outside Australia or on a ship of war during the 1914–18 and 1939–45 Wars; persons who served in the warlike operations in Korea or Malaya or who have served on 'special service' as defined in the *Repatriation (Special Overseas Service) Act* 1962; and members of the Defence Force who serve on continuous full-time service and national servicemen whose periods of service ended not earlier than 7 December 1972 and who meet certain prescribed conditions. The categories of eligible persons also include the widows and, in some circumstances, the widowed mothers of eligible persons, and persons domiciled in Australia and employed in certain sea-going service during the 1914–18 and 1939–45 Wars.

During 1983–84 the following loan conditions applied:

Maximum loan	:	$25,000
Interest rates	:	3.75 per cent per annum on the first $12,000; 7.25 per cent per annum on any excess over $12,000 up to $15,000; 10.00 per cent per annum on amount in excess of $15,000
Maximum repayment period	:	The maximum repayment period permitted by the Act is 45 years or, in the case of the widow or widowed mother of an eligible person, 50 years; but, normally, the repayment period is limited to 32 years.

Operations under the Defence Service Homes Act

Since the inception of the Defence Service Homes Scheme in 1919, 409,796 loans have been granted to persons eligible for assistance under the Act. All figures shown include homes which were provided originally under the Housing Agreements with the States, and taken over in accordance with those agreements.

The following tables give details of the operations under the Defence Service Homes Act in the year 1983–84. The earliest year for which details are given in the tables is 1978–79; for earlier years *see* previous issues of the Year Book. The figures shown include operations in the Northern Territory, Norfolk Island and in Papua New Guinea.

DEFENCE SERVICE HOMES ACT: NUMBER OF LOANS GRANTED

Year	Construction of homes	Purchase of new homes	Purchase of previously occupied homes	Enlargement of existing homes	Total
1978–79	1,904	658	2,720	83	5,365
1979–80	1,734	566	2,846	105	5,251
1980–81	1,927	531	3,332	125	5,915
1981–82	2,694	570	3,818	203	7,285
1982–83	2,345	419	3,568	225	6,557
1983–84	1,998	254	3,058	220	5,530

DEFENCE SERVICE HOMES ACT: STATE SUMMARY OF OPERATIONS

Year	N.S.W.(*a*)	Vic.	Qld(*b*)	S.A.(*c*)	W.A.	Tas.	A.C.T.	Total
NUMBER OF LOANS GRANTED								
1978–79	1,657	1,042	1,068	559	540	102	397	5,365
1979–80	1,751	1,111	1,039	450	474	107	319	5,251
1980–81	1,584	1,309	1,287	495	684	138	418	5,915
1981–82	1,569	1,563	2,031	709	806	198	409	7,285
1982–83	1,576	1,484	1,447	687	808	185	370	6,557
1983–84	1,222	1,264	1,215	580	770	177	302	5,530
CAPITAL EXPENDITURE ($'000)								
1978–79	23,842	14,980	15,438	7,992	7,836	1,467	5,879	77,434
1979–80	25,035	15,835	15,149	6,235	6,923	1,508	4,740	75,425
1980–81	26,174	22,334	21,128	8,413	12,505	2,396	8,603	101,554
1981–82	34,350	34,710	44,690	15,318	18,537	4,362	9,723	161,690
1982–83	36,677	33,939	34,416	15,500	18,877	4,001	9,067	152,477
1983–84	28,218	29,133	28,321	13,213	18,487	4,078	7,336	128,786
LOAN REPAYMENTS ($'000)								
1978–79	29,928	20,670	10,416	6,578	7,848	1,951	(*d*)	77,391
1979–80	33,425	21,865	13,062	7,361	8,359	1,951	(*d*)	86,023
1980–81	36,290	22,475	14,990	8,144	9,203	1,833	(*d*)	92,935
1981–82	29,825	22,278	14,915	7,933	8,980	2,013	(*d*)	85,944
1982–83	27,951	22,084	13,191	8,032	8,017	1,772	(*d*)	81,047
1983–84	33,837	25,856	16,433	9,936	10,322	2,575	(*d*)	98,959
NUMBER OF LOAN ACCOUNTS AT 30 JUNE								
1979	62,255	50,192	26,093	16,131	17,540	4,152	(*d*)	176,363
1980	60,839	48,090	25,529	15,600	16,971	4,006	(*d*)	171,035
1981	58,371	46,591	25,086	15,099	16,510	3,915	(*d*)	165,572
1982	56,953	45,498	25,254	14,871	16,235	3,876	(*d*)	162,687
1983	55,949	44,473	25,476	14,649	16,246	3,856	(*d*)	160,649
1984	54,114	42,738	25,198	14,181	15,990	3,761	(*d*)	155,982

(*a*) Includes A.C.T. and Norfolk Island (*b*) Includes Papua New Guinea (*c*) Includes Northern Territory (*d*) Included in New South Wales.

Mortgage and Rent Relief Scheme

Under the three-year program which began in 1982–83 the Commonwealth Government announced that it would provide at least $20 million a year to the States, the Northern Territory and the Australian Capital Territory for the provision of short term assistance to low-income earners experiencing genuine financial difficulty in meeting their mortgage repayments, rent payments or in gaining access to private rental accommodation.

Payment of the grants is conditional upon the States and Territories matching those sums dollar-for-dollar.

Particulars of the allocations under this scheme for 1982–83, 1983–84 and 1984–85 are set out below. An amount of $20 million was allocated in each of the years 1982–83 and 1983–84 while $22 million has been allocated for 1984–85.

This program has been incorporated, as a specific assistance program, into the 1984 Commonwealth-State Housing Agreement.

MORTGAGE AND RENT RELIEF SCHEME: BUDGET ALLOCATIONS
($ million)

Period	*N.S.W.*	*Vic.*	*Qld*	*W.A.*	*S.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
1982–83	7.03	5.30	3.11	1.74	1.76	0.57	0.18	0.31	20.00
1983–84	6.98	5.25	3.21	1.77	1.75	0.56	0.17	0.31	20.00
1984–85	7.66	5.77	3.54	1.95	1.92	0.62	0.20	0.34	22.00

Under the arrangements applicable to the operation of the Scheme, States are responsible for the day-to-day administration, including determining eligibility for assistance.

Although funds were allocated to Queensland in 1982–83 the Queensland Government did not elect to join the Scheme until 1983–84.

Crisis Accommodation for Families Program

In 1981–82, the Commonwealth introduced a crisis accommodation program for families in distress. Grants are provided to the States, the Northern Territory and Aboriginal Hostels Limited for the construction, purchase or leasing of dwellings to provide short term emergency accommodation for families. The objective of the program is to assist both one and two parent families who have an immediate need for accommodation.

In the 1981–82 Budget, $2 million was provided for the commencement of the program. A further $4 million was budgeted for 1982–83 and $4 million again for 1983–84.

Particulars of the allocations under this scheme for 1981–82, 1982–83 and 1983–84 are set out below.

CRISIS ACCOMMODATION FOR FAMILIES: BUDGET ALLOCATIONS
($'000)

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1981–82	666	502	295	165	167	55	50	100	2,000
1982–83	1,326	1,000	600	332	334	108	100	200	4,000
1983–84	1,323	996	608	335	331	107	100	200	4,000

In 1984–85 funding for the Crisis Accommodation for Families in Distress Program is being absorbed into the Crisis Accommodation Program, which forms a part of the 1984 Commonwealth-State Housing Agreement.

Housing loans insurance

The Housing Loans Insurance Corporation was established under the *Housing Loans Insurance Act* 1965 to insure approved lenders against losses arising from the making of housing loans. For further information regarding the Corporation and earlier operation of the Scheme, *see* Year Book No. 61, pages 235–6.

Following amendments to the Act in mid 1977, loans for owner-occupancy homes are insurable without limit on loan amount, interest rate or term. A once-and-for-all premium of 1.4 per cent of the amount of the loan is charged by the Corporation for the insurance of loans up to, but less than, 96 per cent of valuation, with the premium rate falling progressively to a minimum of 0.1 per cent on loans of less than 76 per cent of valuation. On loans from 96 to 100 per cent of valuation, the premium charged is 1.4 per cent of the valuation of the loan plus 10 per cent of the amount so calculated. The amendments to the Act also empowered the Corporation to insure loans for rental housing projects and loans to developers and builders. The Act was further amended in September 1983 to permit the Corporation to insure loans for the purchase, construction and improvement of commercial buildings and structures.

From November 1965, when the Corporation commenced operations, until the end of June 1983, 639,000 loans to the value of $15,800 million had been insured.

State housing authorities

The following paragraphs describe briefly the organisation of the various State housing authorities and their activities in the fields of home construction and provision of homes on a rental basis (*see* pages 416-419, for their financial advances to persons wishing to purchase or build a home). For summarised figures of total government construction of houses and other dwellings, *see* pages 420 and 421.

New South Wales—The Housing Commission of New South Wales. The Housing Commission of New South Wales was constituted in 1942, its principal function being the provision of low-cost housing to persons in the lower or moderate income groups.

Advances from the Commonwealth Government have provided most of the Housing Commission's capital funds and by 30 June 1984 had aggregated $1,308,188,000 of which $169,663,000 had been repaid. Other net funds of the Commission at 30 June 1984 comprised: repayable advances from the State, $218,660,000; public loans raised by the Commission, $19,941,000; grants from the Commonwealth Government, $388,313,000; grants from the State, $53,374,000 (including $10,754,000 from Consolidated Revenue and $42,620,000 mainly from proceeds of poker machine taxes); provision for maintenance of properties, $53,427,000; and accumulated surplus, $208,923,000. In addition, the Commission owed $54,766,000 to creditors, mainly for purchase of land and work-in-progress. These funds were represented by fixed assets, $2,134,469,000 (including $137,581,000 debtors for purchase of homes); and current assets, $28,270,000. In 1983–84, the Commission's income was $226,925,000 (including rent $200,371,000 and interest $20,029,000); expenditure was $200,371,000 (interest, $65,984,000).

The permanent dwellings provided by the Commission have been erected under the Federal-State Housing Agreements or from State loans and grants. In 1983–84, 3,115 houses and flats were completed for the Housing Commission by private builders on contract to the Commission.

Upon request by other State Departments, the Housing Commission will erect houses for employees of those Departments, the Departments providing the necessary lands and funds. In addition, the Commission erects (with State funds) dwellings for employees of industries connected with decentralisation and development. Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units, as at 30 June 1984, were approximately $16.10 a week for elderly single persons and $26.80 a week for elderly couples. At 30 June 1984, 12,184 units had been completed.

Victoria—Ministry of Housing. The various State Housing Authorities were consolidated under the control of the Ministry of Housing early in 1973. These authorities now include the Director of Housing, the Government Employee Housing Authority and the Co-Operative Housing Registry.

The Housing Act 1983, which was proclaimed in December 1983, abolished the Housing Commission and the Home Finance Trust, replacing these by a Body Corporate under the name of the Director of Housing. From 1 January 1984, all assets, rights, liabilities and obligations of the Housing Commission and of the Home Finance Trust were vested in and became due by the Director.

Under the Housing Act 1983 the aims of the Ministry of Housing are to assist people into satisfactory housing solutions, at a price they can afford to pay, at a standard at least equal to the standard provided by the private sector, and in a socially integrated manner.

The charter of the Ministry of Housing includes a requirement to ensure that every person in Victoria has adequate and appropriate housing at a price within his or her means by encouraging the provision of well maintained public housing of suitable quality and location, the distribution, according to need, of Government Housing financial assistance and the promotion of orderly planning assembly and development of land.

Since the signing of the 1945 Housing Agreement the construction and acquisition of dwellings has been financed jointly by the Commonwealth and State Governments.

As at 30 June 1984 the Ministry of Housing and its predecessors had built or purchased 97,334 dwelling units of which 50,785 have been sold.

Rental charges for the year ended 30 June 1984 were $124.3 million against which $37.6 million was allowed in rental rebates to tenants on low incomes including pensioners.

Queensland—The Queensland Housing Commission. The Queensland Housing Commission was established in 1945 to assist in meeting the housing shortage. In addition, the Commission was empowered to build houses itself, either for sale or for rental.

During 1983–84 the Commission provided 4,093 dwelling units, bringing the total number under all schemes since the revival of housing construction in 1944–45 to 73,793. Of this number, 46,999 houses, or 63.7 per cent, were for home ownership, and 26,794, or 36.3 per cent, were for rental.

In the field of rental housing the Commission administers and acts as the constructing authority under the Federal-State Housing Agreements and States Grants (Housing) legislation. Operating under the provisions of the *State Housing Act* 1945–1983, the Commission, through its scheme of mortgage finance, makes advances for the construction of dwellings to eligible persons who own a suitable building site. The number of dwellings completed during 1983–84 under this scheme amounted to 2,614, making a total of 45,548 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees. The Commission has power to sell houses under contract of sale conditions. Contract of sale agreements were made to purchase 95 of the Commission's houses during 1983–84.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust was established under the South Australian Housing Trust Act, 1936. Under the Housing Improvement Act, 1940, the Trust became the housing authority to administer the Act and the Trust's powers were extended. It is also the housing authority for South Australia under the *Housing Assistance Act* 1984.

The primary role of the Trust is to provide housing for those in need and within their capacity to pay.

In fulfilling its primary role, the Trust aims to provide housing which is appropriate for the householders' needs, is of an acceptable and modern standard and is integrated within the surrounding environment.

The Trust makes housing available to those in need, by the construction, purchase or leasing of property which is let to tenants at rents related to cost, with a rent rebate scheme for those with special needs; by the sale of housing, mainly to sitting tenants.

The Trust also provides assistance to tenants renting privately through:

- the administration of the Rent Relief Scheme;
- its management responsibility for the Emergency Housing Office; and
- exercising its responsibilities under the Housing Improvement Act.

It also assists home owners in financial crisis through the Mortgage Relief Scheme.

The Trust has a separate responsibility to government to act as the State's industrial property authority, to provide industrial premises for approved additions to or extensions of industrial facilities within the State.

During the year the Trust introduced the *Rental Purchase Scheme* which is administered by the Trust in conjunction with the State Bank. This Scheme supersedes the *Low Deposit Purchase Scheme* in assisting low income people in purchasing a home through a nominal deposit and low interest loan.

The Trust has also initiated the development of tenant participation in some of its housing estates. During the year several committees were elected to represent Trust tenants to become involved and have a meaningful say in the issues affecting their homes and the broader community.

Other schemes initiated previously gained momentum during the year in assisting those in need. These include:

- The provision of up to 50 houses to voluntary agencies and youth groups for use as youth shelters.
- *The Housing Co-operatives Scheme* under which the Trust subsidises private rental co-operatives.

A total of 99,149 dwellings have been built, purchased or leased by the Trust since 1936.

For further details *see* South Australian Year Book.

Western Australia—State Housing Commission of Western Australia. The activities of the State Housing Commission extend throughout the whole State. In addition to construction of a variety of dwellings for its own rental and purchase program as determined under the State Housing Act, the Federal State Housing Agreements prior to 30 June 1971, the *States Grants (Housing) Act* 1978, the 1978 Housing Agreement, and the 1981 Housing Agreement, its activities include: construction of houses for other Government Departments (both Commonwealth and State Government, and semi- and local government authorities) in Western Australia; and construction and maintenance of houses for the Government Employees' Housing Authority.

At 30 June 1984, the Commission had provided under all schemes since 30 June 1944 a total of 72,191 units of accommodation throughout the State (including 12,046 units completed under the *Defence Services Homes Act* 1918).

During the twelve months ended 30 June 1984, 943 units of accommodation were provided: metropolitan area, 505; country, 143; and north of the 26th parallel, 295. A further 819 units were under construction, and 24 units were also in the process of being acquired.

Building societies are a major source of housing finance in Western Australia. At 30 June 1984, it was estimated that the assets of permanent and terminating societies were about $2,547 million. Currently, 8 permanent and 215 terminating societies are operating. Under the 1981 Housing Agreement with the Commonwealth the State is required to allocate a proportion of the funds the State receives under the Agreement to the Home Purchase Assistance Account. Advances are made from the account to terminating building societies which in turn make loans available to eligible applicants being those persons unable to obtain mortgage finance assistance in the open market or from other sources.

Under the *Housing Loans Guarantee Act,* 1957–1973, the guarantees provided to financial institutions enable loans to be made to lending institutions with full security. The Act enables building societies and other approved bodies to make high ratio advances to families of low and moderate means without additional charge. The interest rate charged to the borrower may not exceed 12.25 per cent reducible. Loans may be made for up to 90 per cent of the value of the house and land. The maximum loan permitted in respect of the metropolitan region south of the 26th parallel is $38,700. For a new house situated north of the 26th parallel and in the North West or Eastern Land Divisions, the maximum loan is $65,700 and in the Kimberley Land Division $68,400.

Tasmania—Tasmanian Housing Department. Legislation was passed in September 1983 which re-established the Housing Department as a separate entity. The Housing Department continued the functions of the Department as originally formed in 1953, that of administering the portion of the *Homes Act* 1935 relating to the acquisition and development of land for housing purposes and the erection of homes for rental and sale to those deemed in need of assistance, and the *Casual Workers and Unemployed Persons Homes Act* 1936.

During 1983–84, dwelling completions numbered 644. The total number of dwellings constructed to 30 June 1984 was 22,080 of which 6,293 have been sold or demolished. Purchased properties number 733 making the total dwelling stock 16,520. Of these 12,872 are detached or semi-detached, 1,895 are elderly persons' units, 404 are multi-villa units, 1,311 are villa units, 29 are moveable units and 9 are neighbourhood houses.

The Department allots all welfare housing accommodation on a rental basis. Weekly rental was between $45.00 and $64.00 at 30 June 1984. Approximately 70 per cent of tenants are in receipt of a rental rebate. Under current policy, a tenant whose income is below the State Minimum Wage would pay 20 per cent of the income as rent. Tenants whose income is above the State Minimum Wage pay between 20 and 25 per cent dependent upon their level of income. The higher the income the greater the percentage.

Housing schemes in Australian Territories

Northern Territory. In 1946 control of all government-owned residences in the Territory (excluding those belonging to the Defence Services or Commonwealth Railways or attached to post offices) was vested in the Administration. The Northern Territory Housing Commission was established in 1959 and operates under authority of the *Housing Act* 1979. The Commission became autonomous on 1 October 1969 and, in addition to its role of providing residential accommodation to persons of limited means, its functions were broadened as from 1 July 1978 to include the provision of housing for employees of the Northern Territory Government and related authorities and the provision of residential, office, industrial or other accommodation for the Commonwealth and the Territory for public purposes and approved commercial and welfare organisations.

Australian Capital Territory. The Commonwealth Government provides houses, flats and aged persons' units for rental to persons on low incomes who live or are employed in the Australian Capital Territory. At 30 June 1984 the Department of Territories and Local Government controlled 6,762 houses and 3,355 flats (including aged persons' units) for rental purposes. Government rental houses may only be purchased by tenants who can demonstrate to the Minister's satisfaction that they cannot afford to purchase a dwelling in the private market.

Summary of rental activities of government authorities

The first of the following two tables shows the revenue from rental for dwellings under control of government housing authorities each year from 1978-79 to 1983–84, and the second shows the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year 1978–79 to 1983–84.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS

($'000)

Year	*N.S.W.*	*Vic.(a)*	*Qld*	*S.A.*	*W.A.(a)*	*Tas.*	*N.T.(a)*	*A.C.T.*	*Aust.*
1978–79	114,404	64,556	39,382	42,785	27,764	12,722	9,090	20,658	321,361
1979–80	127,584	68,819	42,924	46,775	28,882	16,100	12,115	20,123	363,322
1980–81	143,409	72,122	44,582	52,889	34,585	17,646	15,241	20,497	400,971
1981–82	162,323	82,322	51,112	60,403	36,648	21,557	17,915	22,896	455,176
1982–83	188,317	102,290	55,865	70,243	40,475	25,149	18,712	37,780	540,831
1983–84	200,371	126,452	59,675	78,841	44,108	28,178	19,899	35,794	591,255

(*a*) Figures relate to Housing Commission only.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT

Year	*N.S.W.*	*Vic.(a)*	*Qld*	*S.A.*	*W.A.(a)*	*Tas.(b)*	*N.T.(b)*	*A.C.T.(b)*	*Aust.*
1978–79	85,997	40,049	22,730	41,559(*c*)	25,011	8,238	5,540	10,550	239,674
1979–80	90,124	40,090	23,063	42,763(*c*)	25,867	9,258	6,121	10,282	247,568
1980–81	93,178	41,708	23,581	44,603(*c*)	26,060	9,886	6,635	10,014	255,665
1981–82	95,237	43,900	24,253	46,263(*c*)	27,707	10,412	6,882	9,495	264,149
1982–83	97,286	45,806	25,421	48,466(*c*)	28,656	10,996	7,167	9,638	273,436
1983–84	99,979	49,026	26,890	50,914	28,934	11,736	7,376	9,849	284,522

(*a*) Figures relate to Housing Commission only. (*b*) Number of occupied dwellings at 30 June. (*c*) Figures amended to include housing purchased specifically for rental to Aboriginals.

Advances to home purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the Commonwealth or State Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to home purchasers and loans to contract builders, etc. are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on. While figures of all loans to home purchasers are not available, the institutions mentioned account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

State and Territory authorities and agencies

New South Wales: State Bank of New South Wales—Sale of Homes Agency. A Sale of Homes Agency was established in 1954 to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales. Since 30 November 1976, the sale of these homes on a terms basis has not been permitted, although the Agency still acts as agent for the Commission in collecting instalments payable by purchasers of homes sold prior to that date. The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954–55 and 1955–56. The sales were made on the basis of 10 per cent deposit and repayment of the balance over a maximum period of forty years, with interest at 4.5 per cent a year. Total advances under that scheme amounted to $646,648; at 30 June 1984 the advances outstanding amounted to $55,363 in respect of 22 houses.

Between 1 July 1956 and 30 November 1976, the Sale of Homes Agency acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the Federal-State Housing Agreements. The terms of sale provided for a minimum deposit of $200 and repayment of the balance over a maximum period of forty-five years, with interest rates since the inception of the scheme ranging from 4.25 to 6.75 per cent a year. Particulars of the advances made by the Agency in connection with the sale of houses erected under the 1956, 1961, 1966 and 1973 Agreements and the *States Grants* (*Housing*) *Act* 1971 are given in the following table.

STATE BANK OF NEW SOUTH WALES—SALE OF HOMES AGENCY ADVANCES FOR HOMES SOLD UNDER THE 1956, 1961, 1966 AND 1973 FEDERAL-STATE HOUSING AGREEMENTS AND THE STATES GRANTS (HOUSING) ACT OF 1971

	Advances during year		*Total advances to end of year*		*Advances outstanding at end of year(a)*	
Year	*Number of houses*	*Amount*	*Number of houses*	*Amount*	*Number of houses*	*Amount*
		($'000)		($'000)		($'000)
1978–79	—	—	29,176	246,802	16,802	125,126
1979–80	—	—	29,176	246,802	15,628	114,112
1980–81	—	—	29,176	246,802	14,517	103,869
1981–82	—	—	29,176	246,802	13,732	96,437
1982–83	—	—	29,176	246,802	13,032	90,123
1983–84	—	—	29,176	246,802	12,240	83,009

(*a*) Comprises principal outstanding and loan charges due but not paid.

Prior to 30 November 1976 the Sale of Homes Agency also acted as agent for the Housing Commission in arranging the sale of houses erected by the Commission on applicants' land. Under this scheme persons who had established a housing need could apply to the Commission to have a standard-type dwelling erected on their own land. The houses were sold, at a price equivalent to their capital cost, on the same terms as for houses erected under the 1956 to 1973 Housing Agreements and the *States Grants (Housing) Act* 1971. Up to 30 June 1984, 769 houses had been built at a cost of $8,223,000; the balance of indebtness at that date was $2,976,732.

State Bank of New South Wales—Other loans. The State Bank of New South Wales provides assistance to individuals for the erection or purchase of homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The current rate of interest on new long-term loans for housing purposes is 11.5 per cent a year.

Victoria: Ministry of Housing. To 30 June 1984, 97,334 (1983—95,356) dwelling units had been built or purchased by the Director of Housing and its antecedent authority, the Housing Commission, using funds provided under the Commonwealth—State Housing Agreement, State funds and Ministry funds. Of these dwelling units, a total of 51,544 (1983—50,725) houses have been sold, 29,201 (1983—28,720) in the metropolitan area and 22,343 (1983—22,005) in the country.

The Home Finance Trust, constituted under the *Home Finance Act* 1962, was abolished in 1983, its functions being assumed by the Director of Housing. The number of loans granted by the Director of Housing (including loans granted by the Trust to 31 December 1983) and subsisting totalled 2,526 (1983—2,507) on the security of first mortgage and 3,274 (1983—3,745) on second mortgage, the amounts involved being $49.9 million (1983—$45.5 million) and $15.4 million (1983—$18.4 million) respectively.

Queensland: Queensland Housing Commission. Loans from the Commonwealth and State Government are the major source of capital funds for the Commission. Under the *State Housing Act* 1945–83, an eligible person who is the owner of a suitable building site may obtain an advance, secured by mortgage on the land, from the Housing Commission for the erection of a dwelling. The Housing Commission also provides mortgage finance for the purchase of homes already built or to be built by private contractors. The Housing Commission has two Home Ownership Schemes. The first, the Interest Subsidy Scheme, provides a non-repayable subsidy to borrowers who cannot afford commercial rates of interest. The other, the commercial scheme, is for those on higher incomes who cannot obtain finance elsewhere.

Western Australia: State Housing Commission of Western Australia. Under current policy, all sales of Commission rental homes are financed with funds either from the Home Purchase Assistance Account where the family is eligible, or from other lending authorities. The interest rate starts between six per cent and ten per cent according to the applicant's income, and increases by half a per cent each year until it is one per cent below the Commonwealth Savings Bank rate for housing loans. The maximum repayment period is thirty years.

Under the *Loans Scheme Housing Act 1980* eligible applicants can purchase through a Select and Construct Scheme.

Builders are selected by the Commission and are allocated a limited number of blocks of Commission land upon which new purchase homes can be built.

Purchase applicants, when their turn is reached and financial capacity to support a loan is established, are referred to the builders to negotiate a building contract for the construction of a dwelling upon a block of land of their choice.

Sales are under mortgage conditions, the interest rate is currently 8.5 percent and is reviewed annually.

The maximum income an applicant can earn varies throughout the State from $307.70 gross per week in the metropolitan area to $434.40 in the Kimberleys. This increases by $5.00 per week for each dependent child in excess of two.

The maximum value house and land is $36,000 in the metropolitan area with a maximum advance of 95 percent of the valuation. In the remainder of the State, depending upon the locality, the maximum value house and land varies from $37,500 to $72,000, also subject to a 95 percent maximum advance.

Assistance through Terminating Building Societies is available to acceptable applicants from the Loans Priority List under first mortgage conditions if they are able to meet the eligibility requirements. Funds are not available for second mortgages. The interest rate on advances varies from 6 per cent to 11.5 per cent depending on family income, and the maximum repayment period is thirty years. The societies are required to accept no less than 3 per cent of the value of the house and land as a cash equity, but a deposit of 10 per cent or greater is sought by the societies. If the amount of finance required is in excess of the combined maximum advance and deposit provided, a second mortgage or personal loan will be required to bridge the gap.

In the metropolitan area, to be eligible for assistance through the societies, applicants' incomes cannot exceed $240.00 per week, plus $15.00 per week for each dependent child. The maximum value of house and land is $36,000 with a maximum advance of 90 per cent of the valuation being obtainable. The remainder of the State is divided into areas in which the income eligibility varies from $240.00 per week to $320.00 per week plus $15.00 per week for each dependent child. The maximum advance in these areas is 90 per cent on the maximum value of house and land which varies from $36,000 to $72,000.

(*See* Savings Banks, page 243 of Year Book No. 61, for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia.)

Tasmania: Tasmanian Housing Department. The Department no longer provides loans to occupants on a purchase contract. The number of loans outstanding at 30 June 1984 was 4,772 and the amount outstanding was $39,128,000.

Tasmanian Development Authority. On 1 March 1984 the Agricultural Bank of Tasmania was absorbed into the newly formed Tasmanian Development Authority. This new Authority is responsible for the administration of funds made under the Home Purchase Assistance section of the *Housing Assistance Act* 1978. A new Housing Agreement operating from 1 July 1978 consolidates all past agreements. The State has also provided State Loan Funds for lending under the Homes Act. Interest rates vary from 6 per cent to 13.5 per cent depending on need. The term varies depending on the applicant's capacity to repay.

During the year the State provided additional funds specifically for the construction of homes at an interest rate of 7 per cent fixed for three years and increasing by 0.5 per cent a year thereafter up to within 1 per cent of the then current Commonwealth Savings Bank interest rate for housing.

Principles which apply under the new agreement include:

- To facilitate home ownership for those able to afford it but not able to gain it through the private market.
- Provide assistance for home ownership in the most efficient way and thus exclude from eligibility those not in need, to minimise continued availability of assistance to those no longer in need and to accord benefits which are designed so that assistance being provided is related to the particular family's or individual's current economic and social circumstances.
- The State is able to exercise maximum autonomy and flexibility in the administrative arrangements necessary to achieve these principles.

The following table shows details for recent years.

AGRICULTURAL BANK, ADVANCES FOR HOUSING (*a*)

Particulars	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
Advances approved:						
Number	366	281	386	354	450	624
Value ($'000)	7,532	6,551	10,129	9,448	12,665	18,030
Advances outstanding at 30 June ($'000)	49,190	52,740	58,250	65,056	71,020	83,081

(*a*) Excludes advances to Co-operative Housing Societies.

Northern Territory: Loans Scheme. The Northern Territory Government Home Loan Scheme introduced on 1 October 1979 was replaced on 1 September 1984 by the *Northern Territory Home Purchase Assistance Scheme.* The new scheme is based on the principles set out in the Commonwealth State Housing Agreement.

The scheme is based on a maximum loan of $50,000 to lower income groups. As the gross weekly income of the highest earner increases, the amount of the Commission loan decreases. There is a requirement that a prescribed amount be borrowed from a private lending institution for the higher income group.

Repayments on the loan are based on 20 per cent of gross family income and reviewed annually. Where the repayment is insufficient to cover interest due, the unpaid amount is allowed to accumulate free of additional charges.

The interest rate currently charged is 11.5 per cent and the Commonwealth Savings Bank Home Loan rate will be an indicator for future interest rates.

The maximum term of the loan is 45 years.

To be eligible to apply, applicants must not own a home elsewhere in Australia, have resided in the Territory for the six months prior to application and property value must not exceed $100,000.00. Loans can be on a first or second mortgage basis.

Sales Schemes. Two schemes exist to allow eligible tenants of Northern Territory Housing Commission dwellings to purchase. Under the *General Public Sales Scheme*, sales are on a cash basis only to approved tenants. A *Staff Sales Scheme* also operates to allow tenants of Northern Territory Public Service dwellings to purchase. Sales are for cash or on terms requiring a minimum deposit of 5 per cent of the purchase price with repayments over a maximum period of 45 years including interest at either 6.75 per cent or 9.75 per cent subject to a means test. A requirement of two years satisfactory tenancy, which existed until July 1982, no longer applies.

Australian Capital Territory: The Commissioner for Housing operates an income-geared loan scheme to assist people who are generally unable to afford finance in the private market. Loans to a maximum of $60,000 over a maximum term of thirty years are available for the purchase or erection of dwellings in the Australian Capital Territory. The exact amount of loan granted and term of the loan are determined by the applicant's level of income and assets and the value of the property to be purchased. The following conditions must be satisfied before an applicant may qualify for a loan:

- must have lived or worked in the Australian Capital Territory for at least six months prior to loan approval;
- must not have a realisable interest in any residential property apart from land upon which they intend to build with the aid of the loan;
- must not have already received government financial assistance for housing in the Australian Capital Territory or Queanbeyan;
- must have a total continuing household income of less than $480 gross per week.

Interest rates are variable between 5.75 per cent and 11.5 per cent. The precise rate is geared to the applicant committing 25 per cent of income to total mortgage payments. At 30 June 1984 10,580 properties were under mortgage to the Commissioner for Housing.

Savings banks, trading banks, life insurance companies and registered building societies

For information on loans approved to individuals for owner occupied housing *see* Chapter 21, Private Finance.

CONSTRUCTION

Building

Building activity is a significant indicator of the level of economic activity. In addition, the level of building activity and the types of buildings being constructed affect the Australian physical and social environment. Building approvals statistics give an indication of the potential future level of investment of private individuals, companies and government agencies in approved building construction. Building activity statistics show the level of actual building construction activity in terms of the level of commencements and completions, building jobs under construction and the value of work done and yet to be done on building jobs.

The building statistical collections cover all new dwellings of any value, new other building jobs valued at $10,000 and over, and alterations and additions (to both dwellings and other building) valued at $10,000 and over. From 1966–67 to 1972–73, alterations and additions of $10,000 and over were included with new dwellings and new other building. From 1973–74, alterations and additions (of $10,000 and over) to new dwellings are shown separately, but for other building, new work and alterations and additions continue to be shown combined.

From the September quarter 1980 a new Building Activity Survey replaced the previous quarterly Building Operations Census. The major features of the new survey are as follows:

- replacement of the previous complete enumeration of private sector jobs involving new house construction or alterations and additions valued at $10,000 or more to houses by a sample survey; and
- continuation of the complete quarterly enumeration of jobs involving construction of new dwellings other than private sector houses, construction of new other buildings with an approval value of $10,000 or more and all alterations and additions with an approval value of $10,000 or more to buildings other than private sector houses.

From the September quarter 1981 two additional changes were introduced:

- a one-month-lagged framework of approvals is now used as the basis for selection of both house and non-house building jobs (previously only private sector house jobs were selected from a one-month-lagged approvals framework); and
- in general, a building job is now considered to have commenced, for the purposes of the statistical collection, only when the value of work done on that job as reported by the builder is equal to or greater than a pre-determined (threshold) value.

Number of new houses

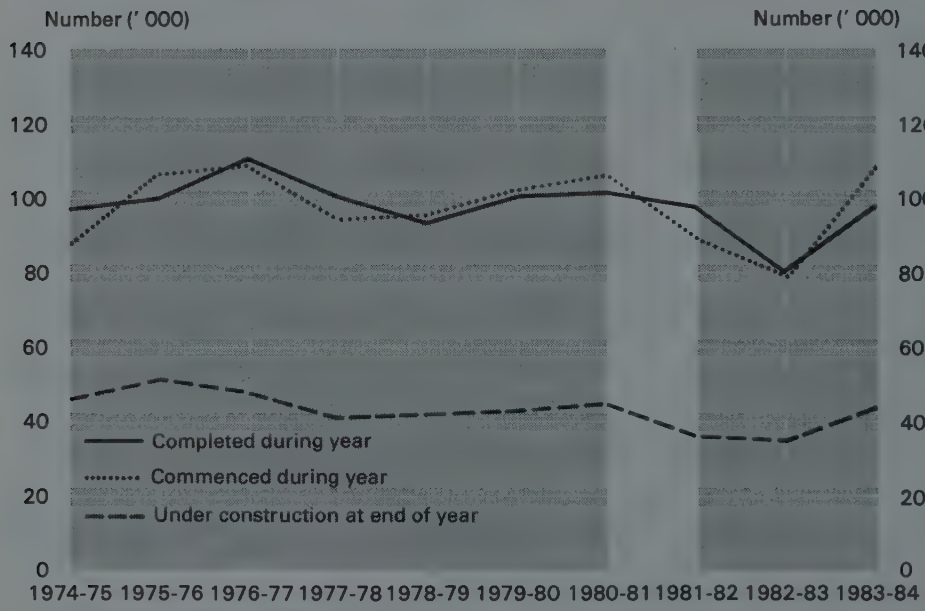
The following table provides a summary of the number of new houses approved, commenced, under construction and completed by type of ownership in each State and Territory for the year 1983–84. For a graph showing these details over an eight-year period, *see below*.

NUMBER OF NEW HOUSES, 1983–84
('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Private Sector—									
Approved	29.4	28.4	24.8	8.7	13.2	2.6	0.9	1.3	109.2
Commenced	26.8	26.2	23.6	7.7	11.3	2.3	0.7	1.2	99.7
Under construction(*a*)	12.3	13.3	6.1	2.6	3.8	1.2	0.3	0.5	40.1
Completed	24.1	23.3	22.1	6.4	9.7	2.0	0.7	1.2	89.5
Public Sector—									
Approved	1.8	2.6	1.2	1.1	0.6	0.4	0.8	0.4	8.9
Commenced	1.8	2.0	1.3	1.0	0.7	0.4	0.8	0.3	8.3
Under construction(*a*)	1.1	0.6	0.4	0.5	0.2	0.1	0.6	0.3	3.9
Completed	1.5	2.5	1.3	1.1	0.6	0.4	0.7	0.2	8.2
Total—									
Approved	31.2	31.0	26.0	9.8	13.8	2.9	1.7	1.7	118.1
Commenced	28.6	28.2	24.8	8.6	12.0	2.6	1.5	1.6	107.9
Under construction(*a*)	13.4	14.0	6.6	3.1	4.0	1.3	1.0	0.8	44.0
Completed	25.5	25.7	23.4	7.5	10.3	2.4	1.4	1.4	97.7

(*a*) At end of period.

NEW HOUSES : AUSTRALIA, 1974-75 TO 1983-84



Note: Breaks in series from 1980-81 and 1981-82

PLATE 43

Number of new houses approved, by material of outer walls

The use of certain materials for outer walls is dictated by such factors as cost, durability, appearance and climatic conditions. Changes in the materials used over time indicate changes in the characteristics of the housing stock.

The following table shows the number of new houses approved in each State and Territory during the year 1983–84, classified according to the material of their outer walls.

NUMBER OF NEW HOUSES APPROVED BY MATERIAL OF OUTER WALLS, 1983–84
('000)

Material of outer wall	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Double brick(*a*)	2.0	1.4	2.5	1.7	12.1	0.2	0.1	–	20.1
Brick veneer	24.7	21.8	17.0	6.3	0.8	2.3	1.3	1.3	75.4
Timber	1.6	2.2	1.9	0.2	0.1	0.3	–	–	6.4
Fibre cement	2.4	1.4	4.1	1.0	0.6	0.1	0.1	–	9.6
Other	0.5	0.1	0.4	0.1	0.2	–	0.1	–	1.4
Not stated	–	4.1	–	0.6	–	–	0.1	0.4	5.2
Total	**31.2**	**31.0**	**26.0**	**9.8**	**13.8**	**2.9**	**1.7**	**1.7**	**118.1**

(*a*) Includes houses constructed with outer walls of stone or concrete.

Number of new other dwelling units

The level of other dwelling construction is highly variable and does not follow the traditionally regular pattern experienced in house construction. This can be explained partly by the generally larger size of other dwelling construction jobs and also by the extent of speculative building of private flats, home units and similar other dwelling projects. Although construction of government-owned other dwellings is substantial, the proportion of government-owned other dwellings to total other dwellings constructed is smaller than that of government-owned houses to total houses.

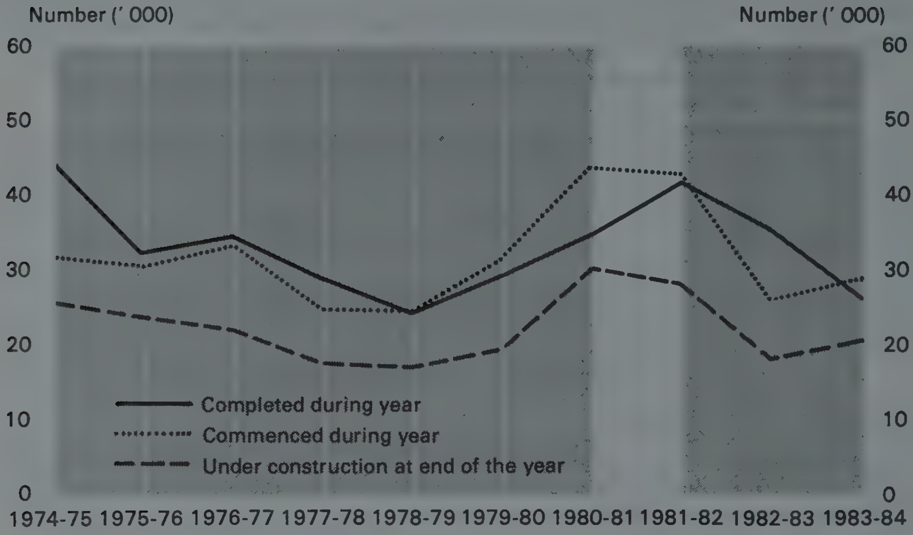
The following table shows the number of new other dwelling units approved, commenced, under construction and completed by type of ownership in each State and Territory for the year 1983–84. For a graph showing these details over an eight year period, *see* page 422.

NUMBER OF NEW OTHER DWELLING UNITS, 1983–84
('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Private Sector—									
Approved	6.6	5.3	6.8	2.5	2.8	0.4	0.6	0.7	25.7
Commenced	5.8	5.0	5.6	2.2	2.4	0.3	0.6	0.6	22.5
Under construction(*a*)	5.5	3.9	2.9	1.3	1.4	0.2	0.2	0.5	15.9
Completed	5.5	4.5	6.5	1.6	1.8	0.3	0.6	0.3	21.0
Public Sector—									
Approved	3.1	0.4	0.8	1.3	0.6	0.3	0.4	–	6.9
Commenced	2.6	0.5	0.8	1.4	0.5	0.3	0.4	0.1	6.6
Under construction(*a*)	2.3	0.3	0.3	0.9	0.3	0.2	0.3	–	4.6
Completed	1.3	0.6	0.9	1.4	0.3	0.3	0.1	–	4.8
Total—									
Approved	9.7	5.7	7.6	3.7	3.4	0.8	1.0	0.7	32.6
Commenced	8.4	5.5	6.4	3.6	2.9	0.6	1.0	0.7	29.1
Under construction(*a*)	7.8	4.2	3.2	2.2	1.6	0.3	0.6	0.5	20.5
Completed	6.8	5.0	7.4	3.0	2.1	0.6	0.7	0.4	25.9

(*a*) At end of period.

NEW OTHER DWELLING UNITS : AUSTRALIA, 1974-75 TO 1983-84



Note: Breaks in series from 1980-81 and 1981-82

PLATE 44

Value of buildings

The following table shows the value of all buildings approved, commenced, under construction, completed, work done and work yet to be done in Australia for the year 1983–84, according to the class of building. The classification of other building by type of building is according to the function a building is intended to serve as specified on building authorisations.

VALUE BY CLASS OF BUILDING, 1983–84
($ million)

Class of building	*Approved*	*Commenced*	*Under construction(a)*	*Completed*	*Work done (b)*	*Work yet to be done (a)*
New houses	5,259.5	4,950.0	2,259.2	4,373.3	4,675.0	1,112.4
New other dwellings	1,181.9	1,097.8	969.2	1,123.6	1,147.4	472.3
Total new dwellings	*6,441.4*	*6,047.8*	*3,228.4*	*5,496.9*	*5,822.4*	*1,584.7*
Alterations and additions to dwellings(c)	*753.8*	*693.7*	*312.0*	*656.7*	*679.5*	*147.5*
Hotels, etc.	401.8	386.2	523.6	218.3	369.9	258.3
Shops	740.9	719.0	493.6	605.5	670.4	230.5
Factories	422.2	460.0	705.9	495.6	548.8	217.0
Offices	1,061.4	1,423.3	1,714.1	932.3	1,115.6	1,034.9
Other business premises	593.8	580.0	414.9	442.3	523.0	210.0
Educational	632.0	594.6	515.9	483.2	514.6	292.0
Religious	34.7	39.4	22.9	40.6	40.1	11.0
Health	361.3	329.8	448.8	205.2	288.7	217.6
Entertainment and recreational	285.2	317.9	455.2	228.4	379.1	164.6
Miscellaneous	245.6	260.5	740.1	431.1	419.8	432.0
Total other building	*4,779.0*	*5,110.5*	*6,035.0*	*4,082.8*	*4,870.0*	*3,067.8*
Total building	**11,974.2**	**11,852.0**	**9,575.4**	**10,236.3**	**11,371.9**	**4,799.9**

(a) At end of period. (b) During period. (c) Valued at $10,000 or more.

Construction (Other Than Building)

These statistics relate to work by private contractors on construction (other than building) prime contracts valued at $100,000 or more, inclusive of all associated sub-contract work performed for the prime contractor. Alterations and additions undertaken as prime contracts valued at $100,000 or more are included in the statistics. Repairs and maintenance contracts, construction undertaken by government authorities involving their own work forces, and construction on their own account by enterprises in the private sector, are excluded.

The construction (other than building) classification is broadly compatible with that used for the publication of data from the 1978-79 Construction Industry Survey.

The following table shows the value of construction (other than building) activity undertaken as prime contracts commenced, under construction, completed, work done and work yet to be done in Australia for the year 1983–84. For 1982–83 *see* Year Book No. 68, p439.

VALUE OF CONSTRUCTION (OTHER THAN BUILDING) PRIME CONTRACTS BY OWNERSHIP, 1983–84
($ million)

	Commenced	*Under construction(a)*	*Completed*	*Work done(b)*	*Work yet to be done(a)*
PRIVATE SECTOR					
Roadwork	261.8	173.2	188.3	238.5	80.8
Dams, water supply and distribution, sewerage and drainage	6.5	4.0	10.2	6.5	1.9
Electrical power transmission, heavy electrical generating plant	18.9	37.3	39.5	48.8	8.7
Harbours	42.1	19.8	37.6	44.9	3.5
Other heavy industrial plant etc.	289.0	1,198.3	717.5	612.4	269.7
Other (*c*)	86.2	160.3	218.0	168.7	52.9
Total	*704.6*	*1,592.9*	*1,211.2*	*1,119.7*	*417.5*
PUBLIC SECTOR					
Roadwork	499.0	454.1	323.6	419.4	240.6
Dams, water supply and distribution, sewerage and drainage	257.9	422.5	234.5	238.6	175.4
Electrical power transmission, heavy electrical generating plant	659.0	3,285.2	605.1	941.2	1,153.0
Harbours	49.5	52.4	160.4	59.1	40.7
Other heavy industrial plant etc.	155.2	540.4	185.7	200.8	202.5
Other (*c*)	429.0	1,520.2	595.2	806.3	443.9
Total	*2,049.5*	*6,274.8*	*2,104.4*	*2,665.3*	*2,256.2*
TOTAL					
Roadwork	760.8	627.3	511.9	657.9	321.4
Dams, water supply and distribution, sewerage and drainage	264.5	426.5	244.7	245.1	177.4
Electrical power transmission, heavy electrical generating plant	677.9	3,322.5	644.7	989.9	1,161.7
Harbours	91.6	72.2	198.0	104.0	44.3
Other heavy industrial plant etc.	444.2	1,738.7	903.2	813.1	472.2
Other (*c*)	515.2	1,680.5	813.2	975.0	496.8
Total	**2,754.1**	**7,867.6**	**3,315.6**	**3,785.0**	**2,673.7**

(*a*) At end of period. (*b*) During period. (*c*) Comprises bridges, railways, pipelines, street and highway lighting, telecommunications and miscellaneous.

Construction Industry Survey

This section contains statistics obtained from a sample survey of private sector construction establishments and of public sector enterprises engaged in construction activity, conducted in respect of 1978–79. This was the first time the ABS obtained comprehensive information about the private sector construction industry, or of construction activity of the public sector.

The survey was undertaken in response to requests from both private and government organisations for such data about the construction industry. The private sector collection was conducted as a component of the ABS's integrated economic statistics system. This system has been developed so that data from each industry sector conform to the same basic conceptual standards, thereby allowing comparative analysis across different industry sectors. The results of this survey are therefore comparable with economic censuses undertaken annually for the mining, manufacturing and electricity and gas industries and periodically for the wholesale, retail and selected service industries.

It is now proposed to conduct a second collection of private sector construction establishments and of public sector enterprises engaged in construction activity. This collection will be in respect of 1984-85 and will produce similar types of statistics to the 1978-79 results.

Private Sector Construction Industry Statistics

The collection has provided detailed information on employment, wages, operating expenses, turnover, value added, capital expenditure, and on the structure and size of establishments in the private sector construction industry. The following tables show for private sector construction establishments, summary statistics relating to their operations; and statistics on the value of construction work done, by industry class and broad commodity group, for 1978–79. Further detailed statistics are contained in ABS statistical publications: *Private Sector Construction Establishments, Details of Operations by Industry Class, Australia,* 1978–79 (8714.0); *Private Sector Construction Establishments, Details of Operations by Industry Class, States and Territories,* 1978–79 (8715.0–8722.0).

Public Sector Construction Activity Statistics

Theoretically the same conceptual framework applies to both the public and private sectors, i.e. preferably all public sector establishments and ancillary units classified to the industries in Division E (Construction) of the Australian Standard Industrial Classification (ASIC) should have been included in the scope of the Survey. However, at the time the survey was conducted, appropriate definitions of public sector establishments and ancillary units had not been developed, because of widely divergent accounting systems within the public sector.

The public sector collection therefore measured the significance of construction activity undertaken by public sector enterprises using their own workforces. It provided information on direct expenses, payments to contractors, and employment associated with new construction and major alterations and additions. Because of the different concepts used in the collection of these data, the public sector results cannot be validly aggregated with those for the private sector. The following table shows construction expenditure of public sector enterprises by type of construction activity and level of government, for 1978–79. Further detailed statistics are contained in ABS publication: *Construction Activity in the Public Sector, Australia,* 1978–79 (8712.0).

Enterprise and Industry Concentration Statistics

Industry statistics shown earlier relate to establishments. Statistics are also available for enterprises engaged in the construction industry. These have been published in the publication: *Enterprise Statistics, Details by Industry Class, Australia,* 1978–79 (8103.0).

Similarly, industry concentration statistics have been published for 1978–79. These aim to show the extent to which a few enterprise groups predominate in the construction industries, and are available in the publication: *Construction Industry Survey, Industry Concentration Statistics, Private Sector, Australia,* 1978–79 (8723.0).

PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS—SUMMARY OF OPERATIONS BY INDUSTRY CLASS, AUSTRALIA, 1978–79

ASIC Code	*Industry class*	*Establishments operating at 30 June*	*Average employment over whole year*			*Wages and Salaries*	*Turnover*	*Stocks*		*Total purchases, transfers in and selected expenses*	*Value added*	*Fixed capital, expenditure less disposals*
			Males	*Females*	*Persons*			*Opening*	*Closing*			
		(No.)	(No.)	(No.)	(No.)	($'000)	($'000)	($'000)	($'000)	($'000)	($'000)	($'000)
4111	House construction	13,347	28,898	10,597	39,495	197,127	2,576,494	385,757	445,478	2,004,902	631,313	36,216
4112	Residential building construction, n.e.c.	1,217	3,353	964	4,317	32,647	421,812	122,583	165,828	369,551	95,506	11,292
4113	Non-residential building construction	2,719	31,618	3,361	34,978	404,674	2,917,730	127,773	127,996	2,271,577	646,376	23,486
411	Total building construction	17,283	63,868	14,922	78,790	634,448	5,916,037	636,113	739,302	4,646,031	1,373,195	70,994
4121	Road and bridge construction	592	10,023	714	10,737	136,025	671,666	25,506	27,924	439,091	234,993	20,082
4122	Non-building construction, n.e.c.	1,310	23,389	1,929	25,318	355,490	1,469,844	51,088	72,065	912,560	578,261	52,497
412	Total non-building construction	1,903	33,412	2,643	36,054	491,515	2,141,510	76,595	99,990	1,351,651	813,254	72,579
41	*Total general construction*	*19,186*	*97,280*	*17,564*	*114,844*	*1,125,963*	*8,057,546*	*712,708*	*839,292*	*5,997,682*	*2,186,448*	*143,573*
4231	Concreting	2,040	7,548	1,661	9,208	68,807	327,936	7,361	8,023	194,098	134,500	4,333
4232	Bricklaying	3,386	7,295	1,732	9,027	33,004	132,478	3,260	3,154	51,390	80,983	1,988
4233	Roof tiling	499	1,550	386	1,937	11,817	72,340	2,629	3,436	47,235	25,912	529
4234	Floor and wall tiling	1,055	1,629	722	2,351	5,827	46,326	1,677	1,981	25,517	21,112	881
4241	Structural steel erection	311	2,916	265	3,180	37,676	103,631	3,601	5,273	46,534	58,769	3,061
4242	Plumbing	6,267	19,012	5,051	24,062	151,529	651,007	30,177	34,951	360,405	295,376	9,514
4243	Electrical work	4,420	20,781	4,046	24,827	205,439	682,940	37,169	39,192	359,486	325,478	8,957
4244	Heating and air-conditioning	599	7,131	863	7,994	84,683	368,708	16,652	18,075	243,491	126,641	3,655
4245	Plastering and plaster fixing	1,484	4,965	1,080	6,046	38,972	188,092	6,806	7,321	112,597	76,010	2,063
4246	Carpentry	2,362	5,348	1,303	6,650	36,778	137,076	4,461	5,132	64,154	73,593	2,887
4247	Painting	5,280	12,100	2,946	15,045	74,338	273,803	6,608	8,113	108,382	166,926	4,393
4248	Earthmoving and dredging	1,874	7,721	1,555	9,277	82,019	356,759	13,913	15,156	186,576	171,426	24,359
4249	Special trades, n.e.c.	2,588	9,849	2,212	12,061	92,423	422,456	20,753	22,833	242,602	181,934	8,899
42	*Total special trade construction*	*32,165*	*107,845*	*23,821*	*131,666*	*923,312*	*3,763,552*	*155,066*	*172,640*	*2,042,467*	*1,738,660*	*75,519*
41–42	**Total construction**	**51,351**	**205,125**	**41,385**	**246,510**	**2,049,275**	**11,821,098**	**867,773**	**1,011,931**	**8,040,149**	**3,925,108**	**219,093**

PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS—VALUE OF CONSTRUCTION WORK DONE BY INDUSTRY CLASS BY BROAD COMMODITY, AUSTRALIA, 1978–79

($'000)

	Building						
Industry	*Houses*	*Other residential buildings*	*Non-residential buildings*	*Total building*	*Total non-building*	*Demolition*	*Total construction work done*
Total Building Construction (411)	2,540,254	536,414	2,799,341	5,876,008	66,732	880	5,943,621
Total Non-building Construction (412)	10,034	2,588	36,024	48,645	2,031,479	199	2,080,323
Total General Construction (41)	*2,550,287*	*539,002*	*2,835,365*	*5,924,654*	*2,098,211*	*1,079*	*8,023,944*
Concreting (4231)	93,208	32,649	129,723	255,580	70,620	4	326,203
Bricklaying (4232)	76,310	12,881	38,590	127,779	4,279	13	132,071
Roof Tiling (4233)	60,677	3,464	5,739	71,681	26	–	71,707
Floor & Wall Tiling (4234) . .	28,185	3,313	12,766	44,263	875	–	45,138
Structural Steel Erection (4241)	2,831	582	53,537	56,949	44,947	183	102,080
Plumbing (4242)	314,717	52,327	244,463	611,507	30,613	–	642,120
Electrical Work (4243) . . .	141,611	23,275	376,545	541,429	112,199	–	653,628
Heating and Air Conditioning (4244)	34,600	3,567	315,102	353,270	4,271	–	357,540
Plastering and Plaster Fixing (4245)	98,676	14,250	66,600	179,527	400	–	179,927
Carpentry (4246)	54,816	8,009	70,353	133,180	3,861	8	137,048
Painting (4247)	134,505	20,617	97,542	252,664	19,282	–	271,945
Earthmoving and Dredging (4248)	29,176	3,862	40,917	73,956	269,406	726	344,088
Special Trades n.e.c. (4249) . .	81,018	6,939	199,296	287,254	105,625	9,673	402,552
Total Special Trade Construction (42)	*1,150,330*	*185,736*	*1,652,972*	*2,989,038*	*666,403*	*10,608*	*3,666,049*
Total Construction (41-42)	**3,700,617**	**724,737**	**4,488,337**	**8,913,692**	**2,764,614**	**11,687**	**11,689,992**

PUBLIC SECTOR ENTERPRISES — CONSTRUCTION EXPENDITURE BY TYPE OF CONSTRUCTION ACTIVITY AND LEVEL OF GOVERNMENT, AUSTRALIA AND STATE, 1978–79

($'000)

	Building						
Type of Government	*Houses*	*Other residential buildings*	*Non-residential buildings*	*Total building*	*Total Non-building*	*Demolition*	*Total value of expenditure on construction activity*
Commonwealth Government .	11,672	1,948	234,331	247,952	676,372	np	np
State Government	163,605	34,276	630,385	828,266	997,749	np	np
Local Government	4,727	3,022	123,672	131,420	781,882	np	np
Total Australia	**180,004**	**39,246**	**988,389**	**1,207,639**	**3,456,004**	**736**	**4,664,380**

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Digest of Current Economic Statistics, Australia (monthly) (1305.0)
Building Approvals, Australia (monthly) (8731.0)
Building Activity, Australia: Dwelling Unit Commencements (Preliminary Estimates) (quarterly) (8750.0)
Building Activity, Australia (Summary) (quarterly) (8751.0)
Building Activity, Australia (quarterly) (8752.0)
Construction (Other Than Building) Activity, Australia (quarterly) (8761.0)

Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statistician in each State.

Other Publications

The annual reports of the Commonwealth and State Government Housing Authorities show further details of government activities in the field of housing.

CHAPTER 20

TRANSPORT AND COMMUNICATION

This chapter contains information on motor vehicles; roads; road traffic accidents; railways; shipping; air transport; bus, train and ferry services; postal services, internal and overseas telecommunication services; radio communication stations; broadcasting and television; and government bodies concerned with these activities.

More detailed figures and particulars for earlier years are included in the publications listed in the Bibliography at the end of the chapter.

TRANSPORT ORGANISATIONS

The Australian Transport Advisory Council

In April 1946, the State and Commonwealth Governments agreed to establish a co-ordinating and advisory committee at Ministerial level whose principal functions were to review annually the various laws and regulations deemed necessary to safeguard the interests of the State Governments and road users generally and to consider matters of transport policy.

The Australian Transport Advisory Council (ATAC), thus established now comprises the Commonwealth Minister for Transport and the Minister for Territories and Local Government, each State Minister responsible for transport, roads, marine and ports matters, and the Northern Territory Minister for Transport and Works. The New Zealand Minister responsible for transport attends as an observer. The Commonwealth Minister for Aviation is co-opted if aviation matters are to be considered by the council.

The Council has, on a number of occasions since its inception, reviewed and refined its procedures and operations. In July 1984, ATAC and the *Marine and Ports Council of Australia* (MPCA) agreed to amalgamate. At present it meets at least twice each year and its primary role is to consider policy matters relating to transport operations, co-ordination and development. Its decisions are reached by consensus of all members. Council's functions are to initiate discussion and report on any matter raised by Council members and to advise on matters which will tend to promote a better co-ordination of, or research in, all modes of transport development for the benefit of Australian transport authorities and agencies. Following the decision to amalgamate ATAC and MPCA, Ministers also agreed to review the procedures, operations and organisation of all ATAC activities. The previous ATAC structure comprised four groups of policy advisers, which reported separately to Council, namely, the *Railway Group, Road Group, Motor Transport Group* and *Co-ordinating and General Transport Group*.

In addition, a number of technical advisory committees reported to Council through the appropriate policy group on such matters as vehicle design and performance standards, driver licensing and behaviour, traffic codes, road safety education and publicity, road trauma, motor vehicle emissions and transport of dangerous goods.

In 1969, ATAC established the *Australian Motor Vehicle Certification Board* to advise State and Territory registering authorities on compliance by new motor vehicles with *Australian Design Rules* (ADRs). The Board's principal function is to issue Compliance Plate Approvals based on manufacturers' submissions that a vehicle complies with those rules applicable at its date of manufacture. Compliance with ADRs is a prerequisite to vehicle registration throughout Australia. The Board reports to ATAC annually.

The MPCA was assisted by a Committee of Advisers, which comprised senior Ministerial advisers. Several sub-committees and working groups, established to consider and recommend on specialised issues, reported to the Committee of Advisers.

Transport Industries Advisory Council

The Transport Industries Advisory Council (TIAC) was formed following the March 1971 Australian Transportation Conference. TIAC, an access channel between industry and the Commonwealth Minister for Transport, provides advice and comment to the Minister on policy issues as well as recommendations related to improving transport systems in Australia, including aviation.

The members of TIAC are drawn from senior management in all modes of transport, major consumers, Government bodies and unions. The Minister appoints members on the basis of personal expertise. New members, appointed annually, serve on the Council for extendable terms of three years.

The full Council, which meets four times a year, operates through an Executive Committee and subject-specific Project Committees. A report of TIAC activities is published annually in the Department of Transport's Annual Report.

Aviation Industry Advisory Council

The Aviation Industry Advisory Council (AVIAC) was established in 1978 to enhance the level of consultation between the aviation industry and the Government. The Council provides advice to the Commonwealth Minister for Aviation on policies, plans and programs relating to the aviation industry within Australia, promotes the continuing development of a safe, efficient, economic aviation industry, and provides a forum for discussion of important matters of joint concern to the aviation industry and Government.

Membership of the Council consists of the Commonwealth Minister for Aviation (Chairman); Secretary to the Department of Aviation; Chairman of Qantas Airways Ltd; Chairman of Australian National Airlines Commission (TAA); Chairman of Regional Airlines Association of Australia Ltd; Chairman of East-West Airlines; National Chairman of the General Aviation Association; Joint Chairman of Ansett Transport Industries Ltd; National President of the Royal Federation of Aero Clubs of Australia and President of the Aircraft Owners and Pilots Association of Australia.

The AVIAC has established a Committee of Advisers to assist in the analysis and preparation of matters to put to the Council for deliberation and decision.

National Airports Consultative Council

The National Airports Consultative Council was formed in 1984 to provide the Minister for Aviation with advice on

- aspects relating to the establishment of a National Airports Authority
- matters of national concern regarding airports
- aviation, commercial, social and environmental aspects of airports policy.

Membership of the Council comprises representatives of the *Australian Mayoral Aviation Council*, the airlines, the general aviation industry, unions concerned with the Department of Aviation, the tourism industry, and an independent member with international expertise in airports management and finance.

The Bureau of Transport Economics

The Bureau of Transport Economics (BTE) is a professional research body which undertakes independent studies and investigations to assist the Commonwealth Government in formulating policy relating to all modes of transport.

The primary function of the BTE is to advise the Commonwealth Government on the economic, financial and technical aspects of air, road, rail and sea transport in Australia. In pursuit of this overall function, the BTE analyses the nature, capacity, performance and financing of transport systems. It also investigates the economic and resource allocation implications of such systems. The BTE has a secondary function of providing assistance to State and local governments, Commonwealth and State instrumentalities and the private sector to identify and address transport problems.

Although formally linked to the Commonwealth Department of Transport, the BTE has a considerable degree of professional and administrative autonomy and reports directly to the Minister for Transport on its program of research work.

SHIPPING

Control of shipping

Commonwealth Government navigation and shipping legislation

Commonwealth Government Acts concerned with shipping are: the *Navigation Act 1912*, the *Sea-Carriage of Goods Act 1924*, the *Seamen's Compensation Act 1911*, the *Seamen's War Pensions and Allowances Act 1940*, the *Protection of the Sea (Discharge of Oil from Ships) Act 1981*, the *Protection of the Sea (Civil Liability) Act 1981*, the *Protection of the Sea (Powers of Intervention) Act 1981*, the *Protection of the Sea (Shipping Levy) Act 1981*, the *Protection of the Sea (Shipping Levy Collection) Act 1981*, the *Australian Shipping Commission Act 1956*, the *Environment Protection (Sea Dumping) Act 1981*, the *Submarine Cables and Pipelines Protection Act 1963*, the *Lighthouses Act 1911*, the *Explosives Act 1961*, the *Inter-State Commission Act 1975*, the *King Island Harbour Agreement Act 1973*, the *King Island Shipping Service Agreement Act 1974*, the *Ship Construction Bounty Act 1975*, the *Trade Practices Act 1974* Part X, the *Shipping Registration Act 1981*.

Navigation Act 1912 as Amended

One of the largest Commonwealth Acts, the Navigation Act, provides for various regulatory controls over ships and their crews, passengers and cargoes, mainly for the preservation of life and property at sea. Substantial penalties are provided for serious offences. The Act gives effect to a number of important international conventions produced under the aegis of the International Maritime Organisation (IMO).

There are 27 sets of Regulations under the Act, and a system of Marine Orders which give legislative effect to various safety and technical requirements in respect of ships, their cargoes and persons on board.

Taken in the order in which they appear in the Act, the main substantive matters dealt with are as follows:

Masters and seamen. Some sections deal with the examination of masters, mates and engineers for certificates of competency. Other sections ensure that appropriate conditions apply to crews serving on ships by providing for the supervision of the engagement, discharge and payment of wages; discipline at sea; the settlement of wages and other disputes; the return to their home port of distressed seamen; taking charge of wages and effects of deceased seamen and of those who have deserted or been left behind; and enquiries into deaths at sea. These matters are administered by Mercantile Marine Offices established at numerous ports. The health of seamen is cared for by the prescription of scales of medicines and medical stores to be carried by ships, and there are provisions to give effect to International Labour Organisation Convention requirements for the accommodation of crews. Plans for new or altered accommodation in ships have to be approved by a Crew Accommodation Committee.

There are requirements for the manning of ships and manning disputes are often dealt with by statutory Committees of Advice. The Act provides for a Marine Council to advise the Minister on the suitability of persons for engagement as seamen.

Ships and shipping. There are particularly important provisions dealing with ship safety in such matters as survey of ships, load lines, life-saving and fire appliances, prevention of collisions, and carriage of potentially dangerous cargoes. Whilst in Australia, all ships which trade interstate or overseas come under the survey provisions of the Navigation Act and require certificates issued by the Department of Transport unless they are registered in a country which is a party to the Convention concerned and hold valid certificates issued by their Governments and conforming to the requirements of the Safety of Life at Sea and Load Lines Conventions. There is power to detain any ship the condition of which does not conform with the conditions set out in its certificate or which appears to be overloaded or otherwise unseaworthy.

Passengers. These provisions deal with matters necessary or convenient for regulating the carriage of passengers in respect of such matters as numbers that may be carried, accommodation and health aspects.

Offshore industry. These provisions, deal with offshore industry vessels and offshore industry mobile units. Marine Orders giving effect to IMO resolutions on this sector of the marine industry are in course of preparation.

Coasting trade. Under the coasting trade provisions of the Navigation Act, the Australian coastal trade is reserved for licensed vessels, i.e. those which employ seamen at Australian wage rates. The Act does not restrict the class of ships which may obtain a licence. It is open to any vessel irrespective of the registry to obtain a licence on compliance with this condition and to operate in the Australian coastal trade subject to permission being given for the importation of the vessel under the Customs (Prohibited Imports) Regulations where necessary. Provision exists for unlicensed vessels to operate in the coasting trade under single voyage permits in certain circumstances where licensed vessels are not available or are inadequate to meet the needs of the trade. Strict control is exercised over the issue of permits for the carriage of coastal cargoes.

Wrecks and salvage. There are provisions in relation to wrecks and salvage, covering preservation of life and of the wreck and its cargo and related matters.

Prevention, etc., of pollution by oil of the Australian coast, coastal waters and reefs. Under these provisions, where oil is escaping, or likely to escape, from a ship, the Minister is empowered to take action to prevent or reduce pollution of the area.

Limitation and exclusion of shipowners' liability. These sections give effect to an international convention and make provision on the widest possible basis for the limitation of shipowners' liability in Australia.

Courts of Marine Inquiry. There are provisions for the holding of Courts of Marine Inquiry to investigate the circumstances attending any casualties to ships that come within Commonwealth legislative authority, usually following a preliminary investigation.

Shipping Registration Act 1981

The *Shipping Registration Act 1981* received Royal Assent on 25 March 1981 and was proclaimed on 26 January 1982. This Act replaces Part I of the *U.K. Merchant Shipping Act* 1894 under which ships in Australia were registered as British ships. The Act provides for all ships on the British register in Australia to be automatically transferred to the new Australian register. The Act has two basic objectives namely the conferring of Australian nationality on Australian-owned ships and the registration of ownership.

Taken in order in which they appear in the Act, the main substantive matters are as follows:

Registration of ships: This part deals with the obligation to register Australian-owned ships, the ships permitted to be registered, the application for registration, particulars to be entered in the Register, the issue of Registration Certificates, Provisional Registration Certificates and Temporary Passes, changes in ownership, marking and naming of the ship, nationality of ships, flags to be flown, assuming and concealing Australian nationality.

Transfers, transmissions and mortgages. This part deals with the transfer, transmission of ship and shares, the taking out, transfer, transmission transfer and discharge of mortgages and the entry of this information into the Register.

Administration. This part deals with the appointment of the Registrar, delegation of the powers of the Minister and Registrar, the establishment of the Shipping Registration Office and Branch Offices.

Register of ships. This part deals with the maintenance, rectification and inspection of the Register.

Transitional provisions. This part deals with the change over from the previous law to the new legislation. This includes the completion of transactions commenced under the previous law and the acceptability of documents prepared under the previous law.

Australian Shipping Commission

The Commission was established by the *Australian Coastal Shipping Commission Act 1956*. Its role has been to establish, maintain and operate interstate, overseas and territorial shipping services. In October 1974 the Commission's title was changed to the Australian Shipping Commission to reflect the increasing importance of its overseas trading activities. In 1980 the Australian Shipping Act was amended to increase the Commission's borrowing powers and give it greater flexibility in determining freight rates. Further amendments to the Act were introduced in 1983 giving the Commission greater control over day-to-day operations and allowing it to operate more commercially.

As at 30 June 1984 the Commission, trading as the Australian National Line, owned and operated a fleet of thirty-three ships. The fleet included nineteen ships engaged in overseas trades comprising ten liner ships totalling 234,685 tonnes deadweight and nine bulk carriers totalling 668,524 tonnes deadweight.

The fleet also included 14 ships engaged in coastal trade comprising one vehicle deck passenger ship, the *Empress of Australia* of 2,725 tonnes deadweight, seven liner ships totalling 51,992 tonnes deadweight and seven bulk carriers totalling 216,601 tonnes deadweight.

The line operated specialised terminals at Adelaide, Melbourne, Burnie, Devonport, Bell Bay, Sydney, Port Kembla, Brisbane, Townsville and Cairns.

In recent times the Line has faced severe economic difficulties at home and abroad, and early in 1984 initiated a review of all of its services. As a result ANL's service to Darwin was withdrawn in February 1984 and as the review continues it is expected that other services and ships may be affected.

The *Empress of Australia* carried 124,674 passengers between Melbourne and Devonport together with 39,500 tourist vehicles during the year ended 30 June 1984. The 'Empress' is approaching the end of her economic life and will be replaced on the Bass Strait service during 1985.

Shipbuilding assistance

The shipbuilding industry in Australia has been assisted by the Government since the introduction of the shipbuilding subsidy scheme in 1947. The level of subsidy has been determined by the Government on the basis of inquiries into the industry by the former Tariff Board and, more recently, by the Industries Assistance Commission.

In May 1977, the Government sent a reference to the Commission on assistance to be accorded to the production of vessels under 6,000 tg. The Commission reported to the Government on 25 July 1979 and on 29 November 1979 the Government announced new, simplified assistance arrangements for the Australian shipbuilding industry, with the introduction of the new Bounty (Ships) Act on 1 July 1980.

Under this Act, bounty continues to be accorded to the production in Australia of vessels over 150 gross construction tons, or over 21 metres in the case of fishing vessels. Bounty is payable on a 'cost of construction basis', at a rate of 25 per cent, phasing down to a long-term rate of 20 per cent to apply from 1 July 1986.

Vessels built at major yards include small cargo vessels, offshore supply vessels, passenger ferries, fishing vessels, dredgers and barges. In addition, there are numerous smaller yards building non-bountiable vessels such as pleasure craft, small fishing vessels, and other small craft. Construction of large ships in Australia ceased in 1978.

In 1983–84 a total of 85 vessels were completed at Australian yards (as compared with 40 in 1982–83 and 55 in 1981–82).

Total financial assistance to the Australian shipbuilding industry in 1983–84 amounted to $26.6m (as compared with $25.6m in 1982–83 and $26.8m in 1981–82).

Importation of ships

The control of imports forms an integral part of the Government's shipbuilding assistance arrangements, complementing the bounty legislation. Under the Customs (Prohibited Imports) Regulations all ships are 'prohibited imports' and may not be imported into Australia except with the written permission of the Minister for Transport. For shipbuilding policy purposes, importation is permitted in the case of new vessels, second-hand vessels outside the size range 70 gross construction tonnes to 10,000 gross construction tonnes, and vessels of a type not available new from Australian yards.

Stevedoring industry

In December 1977, legislation was introduced which provided for new administrative, financial and industrial arrangements for the stevedoring industry and abolished the Australian Stevedoring Industry Authority. The arrangements give the parties directly involved in the industry greater responsibility in the industry's affairs.

The Stevedoring Industry Finance Committee is responsible for the disbursement of funds collected through statutory man-hour and cargo levies.

A federal co-ordinating committee comprising representatives of the employers and the Waterside Workers' Federation (WWF) and Broken Hill Pty Ltd (BHP) and the Australian National Line oversees the operation of arrangements agreed to in the General Agreement between employers and the WWF. At the port level such matters are handled by Port Co-ordinating Committees set up in the major ports.

Under section 85A of the *Conciliation and Arbitration Act 1904* a Port Conciliator Service was created to assist parties to an industry award to implement the procedures of that award for the prevention or settling of disputes.

A non-statutory Stevedoring Industry Consultative Council chaired by Sir Alan Westerman, CBE, has been established to provide a forum for discussion and liaison between government(s), user interests and the operating sections of the industry. The Chairman is appointed by the Commonwealth Government.

The Statutory provisions relating to the industry are contained in the *Stevedoring Industry Finance Committee Act 1977*, the *Stevedoring Industry Levy Act 1977*, the *Stevedoring Industry Levy Collection Act 1977*, the *Port Statistics Act 1977* and sections 85A, 86, 87 of the *Conciliation and Arbitration Act 1904*.

Tasmanian Freight Equalisation Scheme

The Commission of Inquiry into Transport to and from Tasmania in its report published in March 1976 found that because of Tasmania's physical separation from the mainland by sea, Tasmanian shippers suffer a freight cost disability in moving non-bulk cargoes by sea between Tasmania and the mainland.

Following on from the report, the Commonwealth Government introduced, with effect from 1 July 1976, the Tasmanian Freight Equalisation Scheme. The Scheme is designed to equalise door-to-door freight costs of moving certain eligible commodities between Tasmania and the mainland by sea with those for moving similar commodities over comparable interstate mainland rail and road routes.

The northbound component applies to Tasmanian consignors of specified goods by sea that are bought for use or exported for sale on the mainland. Under the southbound component certain producer raw materials, machinery and equipment are eligible for assistance. The northbound component was introduced in July 1976 and the southbound component in July 1977. Assistance under the latter applied to shipments made from 1 July 1976.

In 1983–84 assistance provided under the Scheme for northbound cargoes totalled $27.4m, and $1.9m in respect of southbound cargoes. Since its inception, assistance provided under the Scheme up to the end of 1983–84 totalled $205.0 million.

Responsibility for the administration of the Scheme lies within the Transport portfolio.

Revised rates of assistance for northbound cargoes were introduced on 1 July 1978 and revised southbound rates on 1 March 1980 following reviews of freight costs by the Bureau of Transport Economics. The Scheme is currently being reviewed by the Interstate Commission which is expected to hand its report to the Government by March 1985.

Trade Practices Act 1974 (Part X—Overseas Cargo Shipping)

The Overseas Cargo Shipping provisions of the Trade Practices Act (Part X) are administered by the Transport portfolio.

Part X establishes conditions for the operation of outwards shipping conferences and individual shipowners operating in Australia's outwards trades. Conference agreements between several shipowners in a particular trade make provision for the fixing of common freight rates. They may also include provisions for pooling arrangements and shares of the trade and rationalised sailing schedules.

Part X exempts conferences from the generally applicable anti-restrictive provisions of the Act, and seeks to ensure adequate safeguards to protect shippers through:

- requiring the filing of outwards conference agreements;
- requiring shipowners to give undertakings to hold meaningful negotiations with the designated shipper body, the Australian Shippers' Council (ASC);
- providing for disapproval of a conference agreement to be exercised by the Governor-General on a number of prescribed grounds, such as a failure on the part of the shipowner to comply with an undertaking, lack of due regard to the need for overseas shipping services to be efficient, economical and adequate, prevention or hindrance of an Australian flag operator from engaging efficiently in overseas cargo shipping to a reasonable extent.

Comparable provisions apply to individual shipowners who are not party to a conference agreement.

Marine pollution

The *Protection of the Sea (Discharge of Oil from Ships) Act 1981*, the *Protection of the Sea (Powers of Intervention) Act 1981*, the *Protection of the Sea (Civil Liberty) Act 1981*, the *Protection of the Sea (Shipping Levy)* and *(Shipping Levy Collection) Acts 1981* currently provide the Commonwealth power to deal with matters relating to marine oil pollution.

The Acts respectively provide for the control of discharges at sea and provision of control equipment and procedures on ships; empower the Minister to intervene to take action to prevent or reduce pollution and makes provision relating to limitation of liability of oil tankers for oil pollution damage; and provide for the collection of a levy to finance the National Plan to Combat Pollution of the Sea by Oil.

Two further important Act which will apply the provisions of the International Convention for the Prevention of Pollution from Ships 1973/78 are expected to be proclaimed in 1985. The *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* and the *Navigation (Protection of the Sea) Amendment Act 1983* will implement improved provisions concerning the prevention and limitation of pollution by oil and specified noxious substances and the prohibition or control of discharges of oil or noxious liquid substances at sea. The Acts will also (when proclaimed) require the provision of control equipment and operational procedures on ships.

Collection and presentation of statistics

Basic documents

From 1 July 1966 shipping statistics have been compiled by the Australian Bureau of Statistics from returns submitted by shipping companies or their representatives to Customs Houses at the various seaports throughout Australia. A return is required for the departure of a ship from a port as well as for its arrival at that port.

On 1 July 1979 revised Australian Customs Service forms (B380/B381) came into operation bringing changes in concepts and definitions. At the same time improvements were made in the coverage of the shipping and cargo statistics collection. Consequently statistics for 1979–80 onwards are not always comparable with data for previous periods.

Scope of the statistics

Arrivals and departures of ships are treated separately in shipping statistics. Not all ships are included in the statistics, as returns are not required for (i) naval ships; (ii) yachts and other craft used for pleasure; (iii) foreign fishing ships that neither load nor discharge cargo; (iv) Australian registered fishing ships operating from Australian ports; (v) geographical survey ships, seismic survey ships, oceanographic survey ships; (vi) offshore oil drilling rigs and ships servicing them; (vii) ships of 200 registered net tonnes and under.

Period covered by the statistics

The shipping statistics presented relate to overseas ships arriving at or departing from Australian ports carrying international cargo, within the financial year.

Ship characteristics

Ship recording

Ship movement statistics are recorded as 'Ship Number' and 'Ship Calls'. 'Ship Number' relates to the number of overseas direct arrivals to, or departures from Australia. 'Ship Calls' relates to the number of port visits that an overseas ship makes in Australia. For example, an overseas ship which arrives direct in Brisbane and makes a further call in Sydney before departing for an overseas port from Melbourne is counted as one under 'Ship Number' for both arrivals (Brisbane) and departures (Melbourne) and as one arrival call and one departure call for each of the three ports.

Ship type

All ships are classified from *Lloyd's Register of Shipping* according to one of 11 ship types which describe them in terms of their structure or design. These 11 ship types are amalgamated into four broad categories as follows:

Category	*Ship types*
(a) General cargo ships	Container ships Conventional cargo ships Roll on—Roll off ships Other cargo ships
(b) Tankers	Gas carriers Liquid tankers
(c) Bulk carriers	Dry bulk ships Dry/wet bulk ships
(d) Other ships	Multi-purpose ships Passenger ships Other ships

Type of service

Ships are also classified according to the type of service they provide. The two types of service for which statistics are shown are:

(a) liner service, (according to conference and non-conference) relates specifically to a ship which is operated by a carrier providing services on a specified route on a relatively regular basis; and

(b) other service, which refers to all ships operating in other than a liner service.

Conference ships—A 'conference' is an association of shipowners which regulates the freight rates and terms and conditions of carriage of goods in any particular trade. Conferences only operate liner services and not charter services. Conference arrangements normally include provisions for sharing the trade, rationalising sailing schedules and pooling arrangements for resources and/or revenue.

Country of registration

The country of registration or flag of the ship refers to the country in which the ship is registered according to *Lloyd's Register of Shipping*.

Recording of cargo loaded or discharged

Returns for arrivals show cargo discharged, and returns for departures show cargo loaded, in terms of revenue tonnes and gross weight tonnes. A revenue tonne is the unit of quantity predominantly used in the shipping industry. It is the basis on which freight is charged and may be measured by mass (tonnes) or volume (cubic metres). Revenue tonnes statistics are consequently a mix of mass and volume units and should be used with care. Gross weight is the total weight in tonnes of cargo, excluding the weight of containers, irrespective of the basis on which freight is charged.

Container cargo

Statistics of container cargo refer only to cargo shipped in international containers (including flats but not pallets). To provide a standard measure, all statistics relating to containers are expressed in terms of 20 ft units. A 40 ft container is therefore recorded as two twenty-foot equivalent units (or TEU's).

Country of loading or discharge of overseas cargo

In statistics of overseas shipping and cargo, the country of loading, or discharge, of overseas cargo is the country of location of the port where the cargo was loaded on to, or is to be discharged from, a reporting ship. The countries shown are not necessarily the countries of origin or ultimate destination of cargo because previous or subsequent transhipments of cargo are not taken into account. The statistics of cargo classified by the country in which it was loaded or discharged cannot therefore be compared directly with statistics of overseas trade classified by country of origin or consignment.

Trade area

Ports at which ships load or discharge cargo are allocated to their respective countries, which are in turn allocated to trade areas in accordance with the Classification of Trade Areas for Cargo Statistics.

Units of measurement

The cargo carrying capacity of ships has in the past been measured in terms of registered net tonnage. However, as from 1 July 1979 this statistic has been replaced by deadweight tonnage (DWT).

Deadweight tonnage. A measure of the total mass (weight, in tonnes) of cargo, stores, fuel, passengers and crew carried by the ship when loaded to her maximum summer loadline.

Gross tonnage. A measure of the enclosed internal volume of a ship and its superstructure, with certain spaces exempt, in units of 1 ton per 2.83 cubic metres.

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 150 gross tons or more engaged in the regular overseas, interstate or intrastate services at 30 June 1983.

AUSTRALIAN TRADING VESSELS OF 150 GROSS TONS OR MORE
30 JUNE 1983

(*Source:* Department of Transport)

Vessels	*Number*	*DWT*	*Gross Tons*
Intrastate—			
Australian owned, Australian registered	17	307,121	203,143
Intrastate fleet	*17*	*307,121*	*203,143*
Interstate—			
Australian owned, Australian registered	44	1,076,849	687,715
Overseas owned, Australian registered	8	132,940	92,354
Overseas owned, overseas registered	5	299,119	163,293
Interstate fleet	*57*	*1,508,908*	*943,362*
Coastal fleet	**74**	**1,816,029**	**1,146,505**
Overseas—			
Australian owned, Australian registered	18	648,115	426,522
Overseas owned, Australian registered	5	589,541	351,764
Overseas owned, overseas registered	7	225,306	145,751
Overseas fleet	**30**	**1,462,962**	**924,037**
Total Australian fleet	**104**	**3,278,991**	**2,070,542**

Vessels registered in Australia

The following table shows the number of vessels registered in Australia at 30 June 1984, classified according to (i) the state in which they are registered; and (ii) the nature of the vessels registration.

VESSELS REGISTERED IN AUSTRALIA AS AT 30 JUNE 1984

(*Source:* Department of Transport)

	Nature of registration					
Location	*Demise chartered(a)*	*Other*	*Government*	*Fishing*	*Pleasure*	*Total*
New South Wales	4	230	1	320	1,272	1,827
Victoria	1	111	19	140	352	623
Queensland	5	131	30	573	544	1,283
Western Australia	6	111	4	442	309	872
South Australia	–	39	9	220	170	438
Tasmania	–	83	3	192	155	433
Northern Territory	–	13	2	77	104	196
Total Australia	**16**	**718**	**68**	**1,964**	**2,906**	**5,672**

(*a* A Demise charterd ship is a foreign owned ship chartered by way of a charter party to an Australian based operator, who is an Australian national and who under the charter party has whole possession and control of the ship, including the right to appoint the master and crew of the ship.

The following table shows the number and gross tonnage of trading vessels of 150 tons or more registered in Australia at 30 June 1983, classified according to: (i) year of construction; (ii) type of trade in which the vessels were engaged; and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, OF 150 GROSS TONS OR MORE
30 JUNE 1983

(*Source:* Department of Transport)

	Overseas and interstate vessels		*Intrastate vessels*		*Built in Australian yards*		*Built overseas*		*Total*	
Year of construction	*No.*	*Gross tons*	*No.*	*Gross tons*	*No.*	*Gross tons*	*No.*	*Gross tons*	*No.*	*Gross tons*
1975 and earlier	41	534,189	11	87,006	37	421,260	15	199,935	52	621,195
1976	6	172,201	–	–	3	28,267	3	143,934	6	172,201
1977	7	246,655	1	2,851	3	46,991	5	202,515	8	249,506
1978	9	161,695	–	–	1	25,849	8	135,846	9	161,695
1979	4	97,762	–	–	–	–	4	97,762	4	97,762
1980	–	–	1	2,792	–	–	1	2,792	1	2,792
1981	6	224,251	1	1,155	–	–	7	225,406	7	225,406
1982	1	93,940	2	58,304	1	6,310	2	145,934	3	152,244
1983	1	27,662	1	51,035	–	–	2	78,697	2	78,697
Registered in Australia	**75**	**1,558,355**	**17**	**203,143**	**45**	**528,677**	**47**	**1,232,821**	**92**	**1,761,498**

Harbour boards and trusts

For detailed information *see* the individual State Year Books.

Overseas shipping

Ship movements into and out of Australia

The following table shows the movement of ships and cargo to and from overseas countries, for the years 1977–78 to 1982–83.

OVERSEAS SHIPPING: SHIP AND CARGO MOVEMENTS

	1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–1983*
Arrivals—						
ship details						
ship number	5,615	5,677	6,249	5,995	5,860	5,519
DWT ('000 tonnes)	n.a.	n.a.	247,218	237,223	233,044	223,978
cargo discharged						
revenue tonnes ('000)	26,981	28,637	31,028	32,480	31,340	27,898
gross weight ('000 tonnes)	n.a.	n.a.	26,219	26,767	25,769	23,028
Departures—						
ship details						
ship number	5,668	5,655	6,168	5,922	5,795	5,686
DWT ('000 tonnes)	n.a.	n.a.	246,555	234,618	236,144	230,011
cargo loaded						
revenue tonnes ('000)	166,700	167,304	188,681	179,413	177,193	170,517
gross weight ('000 tonnes)	n.a.	n.a.	187,778	178,514	176,378	169,572

The following table shows particulars of overseas shipping which arrived at or departed from Australian ports according to the country of registration of vessels.

OVERSEAS SHIPPING: SHIP DEPARTURES AND ARRIVALS BY COUNTRY OF REGISTRATION, 1982–83

	Departures		*Arrivals*	
Country of registration	*Ship number*	*DWT ('000 tonnes)*	*Ship number*	*DWT ('000 tonnes)*
Australia	197	10,921	189	10,898
China—excl. Taiwan	156	4,435	149	4,312
—Taiwan	82	5,283	83	5,383
Denmark	89	1,453	89	1,480
Germany, Federal Republic of	161	3,211	135	2,585
Greece	294	10,201	279	9,806
Hong Kong	186	6,807	166	6,631
India	40	1,105	47	1,220
Japan	1,307	86,972	1,286	84,824
Korea, Republic of	196	7,413	200	7,667
Liberia	577	27,481	589	27,697
Malaysia	47	1,177	51	1,302
Netherlands	82	1,360	79	1,264
New Zealand	86	912	89	941
Norway	129	5,333	118	5,071
Panama	644	17,470	645	17,251
Philippines	60	2,262	56	2,264
Singapore, Republic of	223	5,278	205	4,949
Sweden	45	1,509	37	1,182
United Kingdom	491	14,351	467	13,521
United States of America	15	648	14	578
U.S.S.R.	125	1,841	118	1,809
Other countries	454	12,587	428	11,343
Total All Countries	**5,686**	**230,011**	**5,519**	**223,978**
With cargo	5,002	210,731	2,177	49,088
In ballast	684	19,279	3,342	174,891

Overseas cargo according to country of registration of ships

The following table shows the total overseas cargo, loaded and discharged, according to the country in which the ships were registered.

OVERSEAS CARGO LOADED AND DISCHARGED, BY COUNTRY OF REGISTRATION OF SHIPS: AUSTRALIA

('000 revenue tonnes)

	1980–81		*1981–82*		*1982–83*	
Country of registration	*Loaded*	*Discharged*	*Loaded*	*Discharged*	*Loaded*	*Discharged*
Australia	6,876	1,330	6,644	1,378	7,689	1,860
China—excl. Taiwan	5,419	180	4,150	347	3,472	249
—Taiwan	1,201	—	1,729	17	4,913	83
Denmark	647	653	544	513	711	415
Germany, Federal Democratic Republic of	1,035	1,016	1,419	1,096	838	1,024
Greece	8,380	2,439	10,452	2,720	7,257	1,679
Hong Kong	1,975	624	3,995	1,072	4,522	904
India	2,349	221	2,068	77	880	50
Japan	68,555	4,109	70,972	4,097	76,317	3,605
Korea, Republic of	3,066	303	5,712	375	6,235	259
Liberia	37,826	5,817	26,533	5,264	18,110	6,000
Malaysia	509	388	494	341	702	422
Netherlands	551	888	501	407	605	292
New Zealand	641	1,187	476	735	383	564
Norway	5,694	1,571	5,777	1,409	3,378	1,003
Panama	14,522	1,795	15,730	1,789	13,743	1,565
Philippines	1,305	46	1,371	72	1,833	73
Singapore, Republic of	2,786	1,054	3,335	1,206	3,164	1,194
Sweden	448	496	560	477	724	370
United Kingdom	8,214	5,446	7,292	4,822	6,737	4,035
United States of America	261	634	243	329	102	138
U.S.S.R.	1,291	320	1,223	532	1,011	508
Other Countries	6,310	1,961	5,975	2,270	7,190	1,607
Total All Ships	**179,413**	**32,480**	**177,193**	**31,340**	**170,517**	**27,898**

Shipping at principal ports

The following table shows the total movement of overseas shipping and cargo at Australian ports, 1982-83. Details of container and non-container cargo loaded and discharged are also shown.

OVERSEAS SHIP AND CARGO MOVEMENTS AT AUSTRALIAN PORTS 1982–83

	Departures			*Arrivals*		
	Ship details		*Cargo loaded*	*Ship details*		*Cargo discharged*
Australian port	*Ship calls*	*DWT ('000 tonnes)*	*Gross weight ('000 tonnes)*	*Ship calls*	*DWT ('000 tonnes)*	*Gross weight ('000 tonnes)*
New South Wales—						
Sydney	1,200	24,432	5,429	1,187	23,798	2,378
Botany Bay	401	10,901	513	399	10,911	2,648
Newcastle	567	23,595	18,267	552	22,797	992
Port Kembla	216	10,709	6,791	216	10,224	415
Other	42	1,190	861	44	1,224	2
Total	*2,426*	*70,826*	*31,861*	*2,398*	*68,955*	*6,434*
Victoria—						
Melbourne	1,188	21,687	2,286	1,259	22,760	2,535
Geelong	211	6,000	1,045	205	5,771	1,747
Westernport	169	4,201	1,657	172	4,200	63
Other	69	2,043	342	69	1,989	229
Total	*1,637*	*33,931*	*5,330*	*1,705*	*34,720*	*4,573*
Queensland—						
Brisbane	884	16,037	1,965	909	16,513	1,323
Gladstone	292	16,439	12,005	291	16,121	435
Hay Point	179	17,266	13,864	182	17,337	—
Townsville	237	3,871	1,208	236	3,832	80
Weipa	69	3,066	2,640	69	3,111	86
Other	325	4,719	2,553	327	4,791	157
Total	*1,986*	*61,398*	*34,234*	*2,014*	*61,707*	*2,082*
South Australia—						
Port Adelaide	454	7,356	768	461	7,614	473
Port Lincoln	47	1,108	285	46	1,104	109
Port Pirie	84	1,406	606	81	1,327	11
Port Stanvac	45	2,598	128	46	2,868	1,593
Thevenard	38	548	343	38	548	—
Whyalla	36	671	342	37	711	146
Other	35	835	263	34	805	61
Total	*739*	*14,722*	*2,734*	*743*	*14,977*	*2,393*
West Australia—						
Fremantle	1,046	25,413	6,538	1,038	25,155	4,599
Bunbury	120	3,444	2,068	121	3,462	269
Cape Cuvier	11	623	629	10	563	—
Dampier	388	34,074	30,935	391	33,930	68
Geraldton	170	3,913	1,555	168	3,828	235
Port Hedland	323	29,189	26,089	328	28,747	112
Port Walcott	110	14,224	12,349	113	14,188	40
Yampi Sound	33	2,607	2,344	36	2,621	—
Other	276	5,099	2,432	276	5,131	270
Total	*2,477*	*118,587*	*84,941*	*2,481*	*117,625*	*5,591*
Tasmania—						
Hobart	158	2,908	659	172	3,117	160
Launceston	116	3,163	1,671	115	3,160	45
Port Latta	28	2,331	2,041	30	2,398	39
Other	119	2,322	406	121	2,319	83
Total	*421*	*10,724*	*4,776*	*438*	*10,993*	*328*
Northern Territory—						
Darwin	85	1,062	30	80	991	385
Other	139	5,551	3,994	139	5,498	622
Total	*224*	*6,613*	*4,024*	*219*	*6,489*	*1,007*
Port not available for publication	4	46	1,671	—	—	618
Total all ports	**9,914**	**316,848**	**169,572**	**9,998**	**315,466**	**23,028**

OVERSEAS CONTAINER AND NON-CONTAINER CARGO LOADED AND DISCHARGED AT AUSTRALIAN PORTS, 1982–83

('000 revenue tonnes)

	Loaded			*Discharged*		
Australian port	*Container cargo*	*Other cargo*	*Total*	*Container cargo*	*Other cargo*	*Total*
New South Wales—						
Sydney	557	4,999	5,556	1,213	2,056	3,268
Botany Bay	516	43	559	1,538	1,853	3,392
Newcastle	2	18,265	18,267	16	992	1,008
Port Kembla	1	6,790	6,791	3	413	416
Other	–	876	876	–	2	2
Total	*1,076*	*30,974*	*32,050*	*2,770*	*5,316*	*8,086*
Victoria—						
Melbourne	1,949	735	2,684	2,519	1,742	4,262
Geelong	42	1,014	1,056	6	1,750	1,755
Westernport	6	1,650	1,657	6	57	63
Other	–	342	342	–	228	229
Total	*1,998*	*3,741*	*5,738*	*2,531*	*3,777*	*6,309*
Queensland—						
Brisbane	478	1,566	2,044	381	1,512	1,893
Gladstone	–	12,005	12,005	–	435	435
Hay Point	–	13,864	13,864	–	–	–
Townsville	35	1,173	1,208	5	134	139
Weipa	–	2,640	2,640	–	87	87
Other	5	2,549	2,553	1	157	157
Total	*517*	*33,796*	*34,313*	*387*	*2,325*	*2,712*
South Australia—						
Port Adelaide	162	659	821	88	664	752
Port Lincoln	–	285	285	–	109	109
Port Pirie	7	599	606	–	11	11
Port Stanvac	–	128	128	–	1,593	1,593
Thevenard	–	343	343	–	–	–
Whyalla	–	342	342	–	146	146
Other	–	263	263	–	61	61
Total	*169*	*2,618*	*2,787*	*88*	*2,584*	*2,672*
Western Australia—						
Fremantle	448	6,155	6,603	366	4,544	4,910
Bunbury	–	2,072	2,072	–	274	274
Cape Cuvier	–	629	629	–	–	–
Dampier	–	30,937	30,937	–	68	68
Geraldton	–	1,555	1,555	–	235	235
Port Hedland	–	26,090	26,090	1	115	117
Port Walcott	–	12,349	12,349	–	44	44
Yampi Sound	–	2,344	2,344	–	–	–
Other	2	2,431	2,433	4	270	274
Total	*450*	*84,563*	*85,012*	*372*	*5,549*	*5,921*
Tasmania—						
Hobart	–	660	660	2	181	183
Launceston	5	1,694	1,699	–	50	50
Port Latta	–	2,041	2,041	–	39	39
Other	73	344	416	23	67	90
Total	*77*	*4,738*	*4,816*	*25*	*338*	*363*
Northern Territory—						
Darwin	9	27	36	7	414	421
Other	–	3,994	3,994	–	622	622
Total	*9*	*4,021*	*4,030*	*7*	*1,036*	*1,043*
Port not available for publication	375	1,396	1,771	383	410	793
Total all ports	**4,671**	**165,847**	**170,517**	**6,563**	**21,334**	**27,898**

Overseas cargo according to trade area and ship type

The following table shows details of cargo loaded in Australia for discharge overseas, and cargo discharged in Australia from overseas classified according to the various trade areas of the world and by ship type.

OVERSEAS CARGO BY TRADE AREA OF PORT OF DISCHARGED/LOADING BY SHIP TYPE, 1982–83
('000 revenue tonnes)

Trade area	*General cargo ships*	*Tankers*	*Bulk carriers*	*Other ships*	*All ships*
		—Outward cargo—			
Europe	1,325	502	24,308	34	26,169
East Asia	1,120	198	10,724	37	12,079
Japan	3,106	1,738	101,565	409	106,818
N. America-E. Coast	508	174	1,804	1	2,487
N. America-W. Coast	273	151	2,169	33	2,626
Central America	28	–	53	–	81
S. America-E. Coast	10	5	654	10	679
S. America-W. Coast	27	–	57	–	84
West Africa	–	–	62	–	63
South and East Africa	102	18	433	–	553
Red Sea	269	3	817	10	1,098
Persian Gulf	609	7	2,454	3	3,073
West India	127	65	491	–	684
East India	55	22	548	–	625
South East Asia	1,718	453	3,874	79	6,124
New Zealand	675	516	565	14	1,771
Papua New Guinea	488	276	36	–	801
Central Pacific	193	294	7	2	496
French Pacific	65	65	63	–	193
Pacific Islands	16	–	5	–	21
Trade area not available for publication	160	–	3,820	14	3,994
Total outward overseas cargo	**10,872**	**4,487**	**154,511**	**647**	**170,517**
		—Inward cargo—			
Europe	2,200	709	334	26	3,269
East Asia	1,098	23	125	19	1,264
Japan	3,037	175	1,961	213	5,387
N. America-E. Coast	759	336	935	6	2,036
N. America-W. Coast	672	271	1,203	72	2,219
Central America	2	5	–	–	6
S. America-E. Coast	73	26	12	–	112
S. America-W. Coast	2	–	–	–	2
West Africa	4	–	21	–	25
South and East Africa	136	31	69	2	236
Red Sea	36	35	53	–	124
Persian Gulf	31	6,454	500	–	6,985
West India	39	179	81	–	298
East India	21	–	–	–	21
South East Asia	662	2,600	837	31	4,130
New Zealand	596	–	184	12	793
Papua New Guinea	57	4	–	1	62
Central Pacific	31	3	–	–	34
French Pacific	3	–	–	–	3
Pacific Islands	–	–	891	–	891
Total inward overseas cargo	**9,459**	**10,851**	**7,206**	**382**	**27,898**

Overseas cargo according to trade area and type of service

The following table shows details of cargo loaded in Australia for discharge overseas, and cargo discharged in Australia from overseas, classified according to the various trade areas of the world, by type of shipping service.

OVERSEAS CARGO LOADED AND DISCHARGED IN AUSTRALIA BY TRADE AREA OF PORT OF DISCHARGE/LOADING BY TYPE OF SERVICE, 1982–83

('000 revenue tonnes)

	Outward overseas cargo			*Inward overseas cargo*		
	Liner service			*Liner service*		
Trade area	*Conference*	*Non-Conference*	*Other ships*	*Conference*	*Non-Conference*	*Other ships*
Europe	822	77	25,270	1,765	217	1,287
East Asia	287	152	11,641	582	455	227
Japan	591	182	106,044	959	152	4,276
North America—E. Coast	372	248	1,867	687	82	1,267
North America—W. Coast	213	125	2,289	450	389	1,380
Central America	13	–	67	1	1	5
South America—E. Coast	8	2	669	32	12	68
South America—W. Coast	4	1	78	–	–	2
West Africa	–	–	63	–	4	21
South and East Africa	2	70	482	36	60	140
Red Sea	50	23	1,025	–	26	98
Persian Gulf	82	57	2,934	3	3	6,979
West India	74	9	601	37	1	260
East India	43	–	582	20	1	–
South East Asia	610	373	5,141	425	159	3,545
New Zealand	422	39	1,310	435	43	315
Papua New Guinea	286	104	411	26	13	23
Central Pacific	38	51	407	4	14	17
French Pacific	39	24	129	2	1	1
Pacific Islands	5	15	1	–	114	777
Trade area not available for publication	–	–	3,994	–	–	–
Total	**3,961**	**1,553**	**165,004**	**5,463**	**1,745**	**20,690**

Miscellaneous

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors and when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault.

Coastal shipping cargo

The following tables shows the gross weight of cargo loaded at an Australian port for discharge at another Australian port. Both inter and intra-state cargo movements are included. Cargo loaded at, or to be discharged at, an overseas port is excluded.

COASTAL CARGO LOADED AND DISCHARGED AT AUSTRALIAN PORTS, 1982–83

('000 tonnes)

(*Source*: Department of Transport)

	Loaded ('000 tonnes)			*Discharged ('000 tonnes)*		
Australian port	*Interstate*	*Intrastate*	*Total*	*Interstate*	*Instrastate*	*Total*
New South Wales—						
Sydney	177	42	219	2,319	738	3,057
Botany Bay	343	1,109	1,452	3,573	4	3,577
Newcastle	440	46	486	2,416	849	2,765
Port Kembla	1,673	82	1,755	4,388	221	4,609
Other	3	306	309	14	253	267
Total	*2,635*	*1,586*	*4,221*	*12,709*	*1,564*	*14,273*
Victoria—						
Melbourne	1,197	196	1,393	1,752	. .	1,752
Geelong	1,573	206	1,779	583	23	606
Western port	7,742	. .	7,742	732	. .	732
Other	31	319	350	49	285	334
Total	*10,543*	*721*	*11,264*	*3,116*	*308*	*3,424*
Queensland—						
Brisbane	131	1,064	1,195	3,305	316	3,621
Gladstone	481	294	775	268	4,198	4,466
Hay Point	. .	. .	. .	. .	. .	. .
Townsville	218	25	243	425	190	615
Weipa	. .	4,992	4,992	. .	11	11
Other	767	84	851	223	724	947
Total	*1,597*	*6,459*	*8,056*	*4,221*	*5,439*	*9,660*
South Australia—						
Port Adelaide	256	80	336	504	1,066	1,570
Port Lincoln	8	14	22	77	40	117
Port Pirie	152	. .	152	218	102	320
Port Stanvac	439	111	550	464	42	466
Thevenard	439	. .	439	. .	. .	. .
Whyalla	343		343	741	88	829
Other	669	1,203	1,872	. .	69	69
Total	*2,306*	*1,408*	*3,714*	*2,004*	*1,407*	*3,411*
Western Australia—						
Fremantle	1,076	782	1,858	1,254	403	1,656
Bunbury	356	. .	356	. .	149	149
Cape Cavier	. .	. .	. .	. .	. .	. .
Dampier	1	. .	1	. .	. .	. .
Geraldton	. .	49	49	. .	212	212
Port Headland	4,250	25	4,275	. .	147	147
Port Walcott	. .	. .	. .	1	30	31
Yampe Sound	439	4	443	. .	28	28
Other	808	437	1,245	76	222	298
Total	*6,930*	*1,297*	*8,227*	*1,331*	*1,191*	*2,522*
Tasmania—						
Hobart	436	63	499	684	152	836
Launceston	274	13	287	950	6	956
Port Latta	. .	. .	. .	. .	. .	. .
Other	720	193	913	675	88	763
Total	*1,430*	*269*	*1,699*	*2,309*	*246*	*2,555*
Northern Territory—						
Darwin	18	8	26	161	7	168
Other	264	3	267	29	4	33
Total	*282*	*11*	*293*	*190*	*11*	*201*
Total	**25,723**	**11,751**	**37,474**	**25,880**	**10,166**	**36,046**

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1982–83 a total of 124.1 million tonnes of freight was carried, an increase of 118.5 per cent over the 56.8 million tonnes carried in 1962–63. However, in the same twenty-year period, the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 6.6 per cent from 442 million in 1962–63 to 413 million in 1982–83. The number of train-kilometres run during 1982–83 (148 million) was a decrease of 1.4 per cent since 1962–63 (150 million). Since the introduction of the first mainline diesel-electric locomotives in 1950, their numbers have increased greatly until at 30 June 1983 there were 1,701 throughout Australia. Diesel-electric locomotives during 1982–83 hauled 91 million train-kilometres, while electric and other locomotives hauled 4 million train-kilometres.

The Australian National Railways Commission (ANRC) assumed full control over the Tasmanian and non-metropolitan South Australian railways, including those formerly managed by the Commonwealth Railways, on 1 March 1978. This change is reflected in the figures for the 1977–78 financial year as many data items, previously available separately from these three systems, are now included in the figures shown for the Australian National. Urban rail services in South Australia remain the responsibility of the State Transport Authority (STA) and particulars of these are shown as the South Australian railway system.

Due to changes in accounting procedures and the introduction of a multi-modal system of travel, i.e. one ticket can cover a journey involving more than one mode, the STA cannot provide, in many instances, separate particulars for train, bus and tram services operated by that authority. Where data is not separately identifiable it has been included in relevant tables in the railway section of this year book.

Railway development

Details outlining railway development in Australia are given in Year Book No. 61, page 380. One feature of the Australian government railways is the variety of gauges to which they are built. There are three principal gauges: 'broad' (1,600 mm), 'standard' (1,435 mm), and 'narrow' (1,067 mm). Extensive route-kilometres of 1,067 mm gauge railway were built in areas where traffic volumes were initially known to be small and where it was imperative to minimise the costs of construction.

Government railway systems

The six government owned railway systems are operated by the State Rail Authority of New South Wales (SRA), 'V/Line' operated by the State Transit Authority of Victoria and 'V/Met' operated by the Metropolitan Transit Authority of Victoria, Queensland Government Railways (QR), Western Australian Government Railways Commission (WAGRC), the State Transport Authority of South Australia (STA), and Australian National Railways Commission (ANRC).

As the Australian National system includes routes in more than one State, and the Victorian system extends into New South Wales, the system route-kilometres shown in the following table do not represent route-kilometres within each State and Territory.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE AND SYSTEM 30 JUNE 1983

(Kilometres)

	Gauge				
System	*1600 mm*	*1435 mm*	*1067 mm*	*Dual (a)*	*Total*
New South Wales	..	(b)9,883	..	..	(b)9,883
Victoria	(c)5,490	313	..	12	5,815
Queensland	..	(d)111	9,868	..	9,979
South Australia	131	..	..	..	131
Western Australia	..	1,226	4,226	158	5,610
Australian National	2,198	3,636	1,813	..	7,647
Australia	**7,819**	**15,169**	**15,907**	**170**	**39,065**

(a) VR operates a 1600 mm/1435 mm dual gauge line and WAGR operates a 1435 mm/1067 mm dual gauge line. (b) Includes 469 kilometres which are electrified. (c) Includes 328 kilometres of 1600 mm gauge line operating in New South Wales. Includes 417 route-kilometres which are electrified. (d) Operated by the State Rail Authority of New South Wales which is reimbursed for the cost of operations.

The following table sets out the route kilometres of each government railways system from 1978 to 1983.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY SYSTEM, 1978 TO 1983
(Kilometres)

30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Australian National*	*Total*
1978	9,763	6,364	9,787	142	5,764	7,890	39,710
1979	9,820	6,184	9,789	142	5,770	7,683	39,388
1980	9,773	6,184	9,904	142	5,773	7,687	39,463
1981	9,773	5,870	9,932	140	5,773	7,648	39,136
1982	9,773	5,812	9,970	141	5,609	7,638	38,943
1983	9,883	5,815	9,979	131	5,610	7,647	39,065

The SRA (1435 mm gauge) operates lines radiating southwest and west from Sydney, northwest from Newcastle, and north from Sydney to Brisbane. QR (1067 mm gauge) operates a coastal line from Brisbane to Cairns, with long branches inland from the major ports. VR (1600 mm gauge, with the 1435 mm gauge Albury to Melbourne line) operates a network throughout Victoria and extending into New South Wales. WAGR (1067 mm gauge) operates in south-western Western Australia, and also operates standard gauge (1435 mm) from Perth to Kalgoorlie, Esperance and Leonora. The STA (1600 mm gauge) operates railways in the Adelaide metropolitan area only. Australian National operates the non-metropolitan railways in South Australia (1600 mm, 1435 mm and 1067 mm gauge), including the isolated Eyre Peninsula system (1067 mm gauge), the Tasmanian main line from Hobart to Launceston, with its branches (1067 mm gauge) and the railways (1435 mm gauge) from Kalgoorlie to Port Augusta (the Trans Australian Railway) and from Port Augusta to Broken Hill, Port Augusta to Marree, the Central Australia Railway from Tarcoola to Alice Springs, and the A.C.T. railway (Queanbeyan to Canberra). Services on the line between Darwin and Larrimah, the North Australia Railway, (1067 mm gauge) were withdrawn on 30 June 1976 and the line was officially closed effective as from 11 February 1981.

With regard to urban rail, Sydney and Melbourne have major electrified suburban rail systems which include some underground lines. The Brisbane suburban system is being upgraded and electrified. Adelaide and Perth have smaller-scale, non-electric urban rail networks. Rail services in the urban and inter-urban areas of Sydney, Newcastle and Wollongong are provided by the SRA in conjunction with the Urban Transit Authority of New South Wales which has responsibility for co-ordination of transport services in these areas. Similarly, metropolitan rail services in Perth are operated by the WAGR on behalf of and at the direction of the Metropolitan Transport Trust.

Construction of a standard gauge connection between Adelaide and the east-west mainline at Crystal Brook was completed in December 1982, the project being undertaken by Australian National. All mainland State capital cities are now connected to the standard gauge network.

Australian National opened a new Passenger Terminal in Adelaide (at Keswick) for Interstate and South Australian country services in June 1984.

The all-weather standard gauge railway from Tarcoola to Alice Springs was officially opened in October 1980. Upon transfer of rail services to this new line, the narrow gauge section of the Central Australia Railway from Marree to Alice Springs was officially closed effective as from 1 January 1981.

Operations of Government railway systems

Particulars of train-kilometres, passenger journeys, passenger-kilometres, freight-tonnes carried, and freight tonne-kilometres included in this section refer only to operations for which revenue is received.

Summary of operations

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1982–83

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Australian National*	*Aust.*
Train-kilometres ('000) (*a*)—							
Suburban passenger	25,082	14,549	4,466	3,894	1,733	..	49,724
Country passenger	12,124	7,004	4,133	..	945	2,395	26,601
Goods(*b*)	24,301	8,613	22,285	..	7,881	8,400	71,481
Total	**61,507**	**30,166**	**30,885**	**3,894**	**10,560**	**10,795**	**147,806**

For footnotes *see* end of Table

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1982–83—*continued*

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Australian National*	*Aust.*
Passenger journeys ('000) (*c*)—							
Suburban	203,028	80,197	33,135	85,420	n.a.	..	n.a.
Country(*d*)	4,750	4,126	1,614	..	220	357	11,067
Total	**207,778**	**84,323**	**34,749**	**85,420**	**n.a.**	**357**	**n.a.**
Passenger-kilometres ('000) (*e*)—							
Suburban	n.a.	n.a.	n.a.	n.a.	n.a.	..	n.a.
Country	n.a.	n.a.	n.a.	n.a.	86,288	247,198	n.a.
Total	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**247,198**	**n.a.**
Freight—							
Tonnes carried ('000) (*d*)	41,350	8,570	43,706	..	19,791	10,676	124,093
Net tonne-kilometres (million) (*f*)	9,116.6	2,467.9	13,176.8	..	4,384.4	5,347.8	34,493.5

(*a*) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purposes. (*b*) Includes mixed train-kilometres. (*c*) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (*d*) Inter-system traffic is included in the total for each system over which it passes. (*e*) One passenger travelling one kilometre. (*f*) One tonne carried one kilometre.

GOVERNMENT RAILWAYS: ROLLING STOCK(*a*) INCLUDED IN CAPITAL ACCOUNT

(Number)

	Locomotives						
System and date	*Diesel-electric*	*Electric*	*Other*(*b*)	*Total*	*Coaching stock*	*Goods stock*	*Service stock*
30 June 1983							
New South Wales	473	53	80	606	2,713	9,728	1,427
Victoria	256	28	24	308	1,619	11,569	967
Queensland	527	..	77	604	1,270	22,266	2,568
South Australia	2	..	4	6	197	—	12
Western Australia	170	..	17	187	324	8,738	487
Australian National	273	..	13	286	391	9,853	1,291
Australia	**1,701**	**81**	**215**	**1,997**	**6,514**	**62,154**	**6,752**
30 June—							
1982	1,678	80	223	1,981	5,063	65,222	7,039
1981	1,722	82	193	1,997	5,036	66,386	7,201
1980	1,727	81	185	1,993	5,121	67,685	7,228
1979	1,695	74	203	1,972	5,055	67,163	7,192
1978	1,674	74	194	1,942	6,872	71,043	7,225

(*a*) Excludes jointly-owned stock. (*b*) Includes non-passenger-carrying diesel power vans and steam locomotives.

GOVERNMENT RAILWAYS: TRAIN-KILOMETRES 1982–83

('000 kilometres)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Australian National*	*Aust.*
Type of service—							
Passenger—suburban	25,082	14,549	4,466	3,894	1,733	..	49, 724
Passenger—country	12,124	7,004	4,133	..	945	2,395	26,601
Goods(*a*)	24,301	8,613	22,285	..	7,881	8,400	71,481
Total	*61,507*	*30,166*	*30,885*	*3,894*	*10,560*	*10,795*	*147,806*
Type of motive power—							
Hauled by diesel-electric locomotives	31,764	14,394	26,635	..	8,397	10,150	91,339
Hauled by electric and other locomotives(*b*)	2,716	1,342	128	..	2	..	4,187
Powered coaching stock	27,027	14,430	4,122	3,894	2,161	646	52,279
Total	**61,507**	**30,166**	**30,885**	**3,894**	**10,560**	**10,795**	**147,806**

(*a*) Includes mixed train-kilometres. (*b*) Includes steam locomotives.

TRAIN-KILOMETRES

('000 kilometres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Australian National	Aust.
1977–78	56,860	32,013	30,199	3,982	12,596	13,152	148,801
1978–79	55,622	30,856	32,100	3,957	12,068	12,918	147,520
1979–80	59,356	30,795	32,589	3,977	11,759	12,392	150,868
1980–81	58,089	30,615	31,282	3,879	10,891	12,376	147,132
1981–82	59,960	31,136	32,696	3,921	10,681	12,089	150,482
1982–83	61,507	30,166	30,885	3,894	10,560	10,795	147,806

GOVERNMENT RAILWAYS: FREIGHT CARRIED(a), SYSTEMS

('000 tonnes)

Commodity and year	N.S.W.	Vic.	Qld	W.A.	Australian National	Aust.
1982–83—						
Grain	3,106	1,441	1,350	4,698	546	11,141
Other agricultural produce	785	277	1,847	123	19	3,051
Coal, coke and briquettes	27,910	430	32,130	1,489	1,752	63,711
Other minerals(b)	3,031	767	4,065	9,862	2,116	19,841
Iron and steel	1,289	506	559	2	575	2,931
Fertilisers	69	419	94	440	294	1,316
Cement	452	689	162	34	363	1,700
Timber	56	129	61	689	889	1,824
Containers	1,390	836	592	—	918	3,736
Livestock	170	69	577	4	155	975
All other commodities	3,093	3,007	2,271	2,450	3,049	13,870
Total	**41,350**	**8,570**	**43,706**	**19,791**	**10,676**	**124,093**
1981–82	40,393	11,623	43,659	19,776	11,882	127,333
1980–81	40,440	12,721	41,504	20,271	12,345	127,281
1979–80	39,685	13,454	38,440	21,937	12,704	126,220
1978–79	33,482	11,190	36,542	19,288	10,623	111,125
1977–78	33,434	11,120	34,155	18,625	9,995	107,329

(a) Inter-system traffic is included in the total for each system (including each National railway) over which it passes. (b) Includes sand and gravel.

GOVERNMENT RAILWAYS: FREIGHT NET TONNE-KILOMETRES, SYSTEMS

(Million)

Commodity and year	N.S.W.	Vic.	Qld	W.A.	Australian National	Aust.
1982–83—						
Grain	1,395.3	395.3	467.7	n.a.	n.a.	n.a.
Other agricultural produce	436.3	91.9	347.0	n.a.	n.a.	n.a.
Coal, coke and briquettes	2,631.5	87.2	8,603.3	n.a.	n.a.	n.a.
Other minerals(a)	439.5	108.4	1,496.8	n.a.	n.a.	n.a.
Iron and steel	920.1	176.0	183.3	n.a.	n.a.	n.a.
Fertilisers	42.0	112.1	116.6	n.a.	n.a.	n.a.
Cement	250.1	121.9	73.8	n.a.	n.a.	n.a.
Timber	60.7	43.6	36.4	n.a.	n.a.	n.a.
Containers	840.4	356.1	272.0	n.a.	n.a.	n.a.
Livestock	150.3	16.5	390.5	n.a.	n.a.	n.a.
All other commodities	1,951.0	958.9	1,189.6	n.a.	n.a.	n.a.
Total	**9,116.6**	**2,467.9**	**13,176.8**	**4,384.4**	**5,347.8**	**34,493.5**
1981-82	10.704.9	3,426.7	13,079.1	4,389.8	5,731.3	37,331.8
1980–81	10,543.4	3,703.7	11,981.7	4,488.6	5,750.9	36,468.3
1979–80	10,664.9	3,887.8	11,464.6	4,730.7	5,618.2	36,366.2
1978–79	8,776.7	3,145.3	10,925.2	4,178.8	5,029.5	32,055.5
1977–78	9,243.3	3,108.7	10,417.2	4,273.1	4,794.2	31,836.5

(a) Includes sand and gravel.

GOVERNMENT RAILWAYS: GROSS EARNINGS(*a*), SYSTEMS, 1982–83

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Australian National*	*Aust.*
Coaching—							
Suburban passenger	136,362	n.a.	14,987	n.a.	n.a.	. .	n.a.
Country passenger	57,312	n.a.	11,499	. .	5,584	18,526	n.a.
Other	—	n.a.	4,718	n.a.	425	—	n.a.
Total coaching	*193,674*	*112,852*	*31,204*	*34,921*	*6,009*	*18,526*	*397,186*
Freight (goods and livestock)—							
Grain	n.a.	18,635	16,641	. .	n.a.	6,814	n.a.
Other agricultural produce	n.a.	4,662	17,650	. .	n.a.	281	n.a.
Coal, coke and briquettes	n.a.	3,962	314,765	. .	n.a.	10,226	n.a.
Other minerals(*b*)	n.a.	4,330	49,277	. .	n.a.	16,291	n.a.
Iron and steel	n.a.	5,674	6,014	. .	n.a.	11,662	n.a.
Fertilisers	n.a.	4,541	3,172	. .	n.a.	3,116	n.a.
Cement	n.a.	6,172	2,739	. .	n.a.	2,385	n.a.
Timber	n.a.	2,389	1,663	. .	n.a.	6,079	n.a.
Containers	n.a.	8,348	10,746	. .	n.a.	9,071	n.a.
Livestock	n.a.	904	14,900	. .	n.a.	5,725	n.a.
All other commodities	n.a.	49,187	70,655	. .	n.a.	89,830	n.a.
Total freight	*452,626*	*108,803*	*508,223*	. .	*183,632*	*161,480*	*1,414,764*
Miscellaneous	48,519	26,290	10,432	6,987	34,283	13,848	140,359
Grand total	**694,819**	**247,945**	**549,859**	**41,908**	**223,925**	**193,854**	**1,952,310**

(*a*) Excludes Government grants. (*b*) Includes sand and gravel.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS, SYSTEMS

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Australian National*	*Aust.*
			GROSS EARNINGS				
1977–78	380,724	176,522	273,551	6,113	149,477	122,040	1,108,427
1978–79	379,033	192,656	310,418	24,550	154,597	131,829	1,193,083
1979–80	495,833	230,549	352,700	26,943	174,258	157,971	1,438,254
1980–81	559,645	256,177	416,796	33,655	180,529	181,353	1,628,155
1981–82	663,216	260,049	520,265	37,714	211,385	195,267	1,887,896
1982–83	694,819	247,945	549,859	41,908	223,925	193,854	1,952,310
			WORKING EXPENSES				
				(*a*)	(*a*)		
1977–78	643,623	332,508	337,002	25,723	148,708	195,796	1,683,360
1978–79	679,999	347,802	365,070	71,043	159,737	204,738	1,828,389
1979–80	757,555	392,586	422,503	74,391	180,280	222,799	2,050,114
1980–81	870,378	447,761	486,126	84,998	193,166	244,043	2,326,472
1981–82	1,063,725	509,196	588,051	100,000	217,961	268,001	2,746,934
1982–83	1,157,486	625,848	664,548	116,884	235,211	300,410	3,100,387
			NET EARNINGS(*b*)				
1977–78	−262,899	−155,986	−63,451	−19,610	769	−73,756	−574,933
1978–79	−300,966	−155,147	−54,652	−46,493	−5,141	−72,909	−635,308
1979–80	−261,722	−162,037	−69,803	−47,448	−6,022	−64,828	−611,860
1980–81	−310,734	−191,585	−69,331	−51,343	−12,637	−62,690	−698,320
1981–82	−400,509	−249,147	−67,786	−62,286	−6,576	−72,734	−859,038
1982–83	−462,667	−377,903	−114,689	−74,976	−11,286	−106,556	−1,148,077

(*a*) Includes provision of reserves for depreciation. (*b*) Excess of gross earnings over working expenses as shown in this table.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1982–83
($'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Australian National	Aust.
Maintenance of way and works	174,689	(*b*)	178,575	n.a.	52,946	n.a.	n.a.
Motive power(*a*)	406,051	(*b*)	270,898	n.a.	59,284	n.a.	n.a.
Traffic	261,897	525,480	156,867	n.a.	84,380	n.a.	n.a.
Other charges	314,849	100,368	58,207	n.a.	38,600	n.a.	n.a.
Total	**1,157,486**	**625,848**	**664,548**	**(*c*)116,884**	**(*c*)235,211**	**300,410**	**3,100,387**

(*a*) Includes maintenance of rolling stock. (*b*) Not available separately; included with traffic. (*c*) Includes provision of reserves for depreciation.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT, SYSTEMS, 30 JUNE 1983
($'000)

		Plus grants and other earnings payable to railways				*Less other expenses charged to railways*					
System	*Net earnings —excess of gross earnings over working expenses*	*State Government grants*	*Road motor earnings*	*Other*	*Total*	*Interest and exchange*	*Sinking fund*	*Road motor expenses (a)*	*Other*	*Total*	*Surplus or deficit (−)*
New South Wales	−462,667	(*b*)14,400	. .	137,608	152,008	55,749	12,220	. .	69,639	137,608	−448,267
Victoria	−377,903	–	184	–	184	40,201	894	599	(*c*)12,867	54,561	−432,280
Queensland	−114,689	–	–	. .	–	97,284	–	–	(*d*)500	97,784	−212,473
South Australia	−74,976	64,869	–	585	65,454	–	–	–	10,870	10,870	−20,392
Western Australia	−11,286	–	2,274	–	2,274	33,420	–	4,481	2	37,903	−46,915
Australian National	−106,556	102,400	–	–	102,400	–	–	–	16,271	16,271	−20,427
Australia	**−1,148,077**	**181,669**	**2,458**	**138,193**	**322,320**	**226,654**	**13,114**	**5,080**	**110,149**	**354,997**	**−1,180,754**

(*a*) Includes interest and exchange. (*b*) Grants to meet losses on country developmental lines, and the employer liability to the Government Railways Superannuation Account. (*c*) Depreciation. (*d*) Demolished assets written off.

Employment, salaries and wages

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES (EXCLUDING CONSTRUCTION STAFF) AND SALARIES AND WAGES PAID(*a*), 1982–83

		N.S.W.	Vic.(*b*)	Qld	S.A. (*c*)	W.A.	Australian National (*d*)	Aust.
Salaried staff		9,499	5,234	4,259	716	1,939	2,063	23,710
Wages staff		31,373	15,671	21,684	2,870	6,661	7,754	86,013
Total staff		**40,872**	**20,905**	**25,943**	**3,586**	**8,600**	**9,817**	**109,723**
Salaries and wages paid	$'000	841,102	410,606	477,926	49,290	147,521	207,574	2,134,019

(*a*) Excludes salaries and wages paid to road motor staff. (*b*) Includes construction staff. (*c*) Includes staff made available to the State Transport Authority by the ANRC. (*d*) Excludes staff made available to the South Australian STA.

Non-government railways

The Australian non-government railways covered in this section are those which operate outside industrial estates, harbour precincts, mines and quarries with a route distance exceeding two kilometres.

The figures in the following table have been compiled from information supplied to the Department of Transport or the Bureau of Transport Economics by the various railway operators. All operators provided details of tonnes carried and most provided details of tonne-kilometres performed. In a few cases the tonne-kilometre figures have been estimated by the Department of Transport or the Bureau of Transport Economics using the advised average length of haul.

TRAFFIC TASK PERFORMED BY AUSTRALIAN NON-GOVERNMENT RAILWAYS 1977–78 TO 1982–83

Year	*Iron ore railways*	*Sugar tramways*	*Other non-government railways(a)*	*Total non-government railways(a)*
TONNES CARRIED (million)				
1977–78	85.9	20.3	17.9	124.0
1978–79	79.5	18.6	19.6	117.7
1979–80	88.3	18.3	20.6	127.2
1980–81	88.5	20.6	19.5	128.6
1981–82	83.0	21.6	20.9	125.6
1982–83	78.2	20.9	15.1	114.1
TONNE-KILOMETRES (million)				
1977–78	27,723	325	324	28,372
1978–79	24,930	299	324	25,553
1979–80	27,128	292	345	27,765
1980–81	28,264	351	319	28,934
1981–82	26,668	367	347	27,384
1982–83	24,432	355	257	25,045

(*a*) Includes transfers to and from Government railways.

TRAM, BUS, AND FERRY SERVICES

Systems in operation

Trams. At 30 June 1983 tram services were in operation in Melbourne, Victoria and in Adelaide, South Australia. Regular tram services ceased to operate in Ballarat on 19 September 1971 and in Bendigo on 16 April 1972. However services are operated in both cities, on an irregular basis, but generally at holiday periods, as a tourist attraction.

In many parts of Australia private lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tram used for the conveyance of passengers.

Buses. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal bus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Victorian Railways, the State Rail Authority of New South Wales, the Western Australian Government Railways, and the Australian National Railways. Particulars of bus services under the control of private operators for the States of New South Wales, Victoria, Queensland and South Australia are given in the annual publication *Rail, Bus and Air Transport, Australia* (9201.0) for years prior to 1976–77.

Ferries. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Mersey River at Devonport and on the Derwent River at Hobart; and the Brisbane River at Brisbane. Control is exercised by both government authorities and private operators.

Government and municipal tram and bus services

Because of the development in recent years of the various forms of public road transport under the control of single authorities and the gradual replacement of tram services by bus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL STATES AND TERRITORIES: 1982–83

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Route-kilometres at 30 June										
Tram(*a*)	kilometres	..	221	..	11	..	..	..	..	232
Bus	"	1,109	313	760	965	8,405	498	152	1,351	13,553
Vehicle-kilometres										
Tram	'000	..	24,202	..	756	..	..	..	..	24,958
Bus	"	65,971	13,311	22,031	38,453	46,607	9,601	1,920	14,529	212,423

For footnotes *see* end of Table

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL STATES AND TERRITORIES: 1982–83—*continued*

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Rolling stock at 30 June—										
Tram	number	..	691	..	22	..	..	..	..	713
Bus	"	1,719	281	593	767	964	293	40	361	5,018
Passenger journeys—										
Tram	'000	..	n.a.	..	(*b*)	..	..	..	..	..
Bus	"	188,424	n.a.	45,715	(*b*)	54,457	14,318	2,087	20,648	(*e*)(*f*)325,649
Gross revenue(*c*)—										
Tram and bus	$'000	101,795	60,040	19,301	(*b*)	27,456	5,710	616	10,318	(*e*)225,236
Working expenses(*d*)—										
Tram and bus	$'000	181,419	129,744	42,488	(*b*)	62,128	15,453	4,382	23,838	(*e*)459,452
Net revenue—										
Tram and bus	$'000	−79,624	−69,704	−23,187	(*b*)	−32,472	−9,742	−3,766	−13,520	(*e*)−232,015
Employees at 30 June—										
Tram and bus	number	6,227	4,918	1,519	(*b*)	2,239	565	103	805	(*e*)16,376

(*a*) Gauge 1435 mm throughout. (*b*) Not separately available. See page 20/16. (*c*) Excludes government grants. (*d*) Includes provision of reserves for depreciation, etc., where possible. (*e*) Excludes details of metropolitan tram and bus services operated by the South Australian State Transport Authority. See page 20/16. (*f*) Excludes details of metropolitan tram and bus services in Victoria. Minus sign (−) denotes deficit.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL

		1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Route-kilometres at 30 June—							
Tram	kilometres	228	231	231	231	231	232
Bus	"	12,649	12,828	14,173	11,930	13,445	13,553
Vehicle kilometres—							
Tram	'000	24,955	24,967	24,330	24,864	24,836	24,958
Bus	"	197,660	201,693	203,963	193,324	209,104	212,423
Rolling stock at 30 June—							
Tram	number	774	756	759	767	724	713
Bus	"	5,050	5,070	5,112	4,941	4,973	5,018
Passenger journeys—							
Tram	'000	102,581	(*a*)101,070	(*a*) 98,889	(*a*) 100,474	(*a*) 103,479	..
Bus	"	413,987	(*a*)357,558	(*a*) 356,638	(*a*) 347,133	(*a*) 343,216	(*a*)(*f*)325,649
Gross revenue(*b*)—							
Tram and bus	$'000	134,457	(*a*)123,741	(*a*) 143,324	(*a*)184,596	(*a*)201,952	(*a*)225,236
Working expenses(*c*)—							
Tram and bus	$'000	267,281	(*a*)258,644	(*a*) 277,865	(*a*) 337,434	(*a*) 397,394	(*a*)459,452
Net revenue—							
Tram and bus	$'000	−132,824	(*a*)−134,902	(*a*)−134,542	(*a*)−152,838	(*a*) −195,441	(*a*)−232,015
Employees at 30 June—							
Tram and bus	number	(*a*)16,613	(*a*)16,547	(*a*) 16,244	(*a*) 13,795	(*a*) 15,195	(*a*)16,376
Accidents—							
Tram and bus(*d*)—							
Persons killed	number	22	(*e*)27	(*a*) 12	n.a.	n.a.	n.a.
Persons injured	"	(*e*)1,727	(*a*)1,885	(*a*) 1,917	n.a.	n.a.	n.a.

(*a*) Excludes details of metropolitan tram and bus services in South Australia. See page 20/16. (*b*) Excludes government grants. (*c*) Includes provision of reserve for depreciation, etc., where possible. (*d*) Excludes accidents to employees. (*e*) Excludes New South Wales. (*f*) Excludes details of metropolitan tram and bus services in Victoria.

MOTOR VEHICLES

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments, and the Australian Government (excluding those belonging to the defence services).

Survey of motor vehicle usage

A survey was conducted throughout Australia in late 1982 by the Australian Bureau of Statistics for the purpose of gathering information on the usage of motor vehicles. The owners of approximately 59,000 vehicles other than commercial buses and Australian Government owned vehicles were approached for information relating to the usage of their vehicles over the twelve months ended 30 September 1982. The framework from which the sample was drawn was obtained from the motor vehicle registration authorities in all States and Territories. The survey was based on respondents' recollection of their usage of the selected vehicles over their period of ownership during the survey year.

The main purpose of the survey was to determine the total distance travelled by vehicles, classified according to area and purpose of travel. Information was also obtained from the survey on: (i) tonne-kilometres; (ii) average load carried; (iii) vehicle usage (i.e. for hire and reward, ancillary or other); (iv) main type of operation; (v) fuel consumption; (vi) occupant-kilometres; and (vii) driver characteristics.

The following table shows, for Australia, total annual kilometres travelled for the twelve months ended 30 September 1982 classified by vehicle type and purpose of travel. The percentage standard errors (S.E.%) indicate the extent to which the estimates can vary by chance because only a sample and not the total vehicle population was enumerated. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors. For example, if an estimate of 3,000 million kilometres has a standard error of 5 per cent (i.e. 150 million kilometres), then there would be approximately two chances in three that a comparable complete collection would give a figure within the range of 2,850 million kilometres to 3,150 million kilometres and about nineteen chances in twenty that the figure would be within the range of 2,700 million kilometres to 3,300 million kilometres.

TOTAL ANNUAL KILOMETRES BY VEHICLE TYPE AND PURPOSE OF TRAVEL, TWELVE MONTHS ENDED 30 SEPTEMBER 1982

Type of vehicle	*Laden business*		*Unladen business*		*Total business (a)*		*To and from work paid and unpaid*		*Private*		*Total*	
	million kilo-metres	*REL. S.E. (%)*	*million kilo-metres*	*REL. S.E. (%)*	*million kilo-metres*	*REL. S.E. (%)*	*million kilo-metres*	*REL. S.E. (%)*	*million kilo-metres*	*REL. S.E. (%)*	*million kilo-metres*	*REL. S.E. (%)*
Cars and station wagons	..	..	..	..	19,469.6	3.3	23,206.8	2.0	53,431.7	1.3	96,108.9	1.0
Motor cycles	..	..	..	..	143.9	9.3	871.0	5.3	1,137.2	5.0	2,152.1	3.8
Utilities and panel vans	6,228.8	7.4	2,672.0	9.2	9,501.7	6.1	3,109.3	8.1	4,338.1	6.3	16,951.2	3.6
Rigid trucks	5,291.5	6.7	2,364.8	5.3	7,656.5	5.8	377.4	6.5	383.3	16.1	8,417.2	5.4
Articulated trucks	2,142.7	1.4	827.4	1.6	2,970.1	1.2	24.4	8.8	5.0	12.7	2,999.5	1.2
Other truck type vehicles	..	..	..	..	229.8	12.1	5.0	28.8	2.3	48.5	237.1	11.8
Total	**13,663.0**	**4.1**	**5,864.3**	**4.6**	**39,971.5**	**2.4**	**27,593.9**	**1.9**	**59,297.6**	**1.3**	**126,866.0**	**0.9**

(*a*) Includes the total kilometres travelled for business purposes of cars, station wagons, motor cycles and utilities and panel vans predominantly used for private purposes. The dissection of business travel into laden/unladen was not sought for these vehicles.

Motor vehicles on register

Details of motor vehicles on the register are compiled by up-dating motor vehicle census data from information made available by the various motor vehicle registration authorities in the States and Territories. Censuses of motor vehicles have been conducted in respect of 31 December 1955 and 1962, and 30 September 1971, 1976, 1979 and 1982. At these census dates considerably greater information concerning the particulars shown in the tables following is available. Final detailed results of the 1982 census have been published in separate census publications for each State and Territory and for Australia.

MOTOR VEHICLE CENSUS: 30 SEPTEMBER 1982 (FINAL)
('000)

State or Territory	Motor cars and station wagons	Utilities	Panel vans	*Trucks*		Other truck type vehicles	Buses	Motor cycles	Total (a)
				Rigid	*Articu-lated*				
New South Wales	2,070.4	158.4	161.7	155.2	16.1	11.9	15.9	118.5	2,708.1
Victoria	1,700.7	118.5	55.2	146.9	11.5	11.4	11.4	71.7	2,127.2
Queensland	1,005.3	190.5	77.0	55.1	8.6	4.5	7.3	91.8	1,440.0
South Australia	580.4	43.5	28.0	41.5	4.4	5.7	3.6	36.8	744.0
Western Australia	561.3	59.0	53.8	59.6	4.3	6.0	4.9	34.6	783.4
Tasmania	188.1	21.2	11.9	12.8	1.4	1.7	2.1	5.1	244.3
Northern Territory	34.5	12.0	4.3	4.5	0.8	0.2	0.6	4.0	60.9
Australian Capital Territory	92.6	4.5	3.4	3.5	0.2	0.6	0.5	4.4	109.7
Australia	**6,233.4**	**607.6**	**395.3**	**479.0**	**47.2**	**42.0**	**46.2**	**366.9**	**8,217.7**

(*a*) Excludes tractors, plant and equipment, caravans and trailers.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE, AUSTRALIA
('000)

30 June	*Motor cars and station wagons*	*Utilities, trucks, panel vans, other truck type vehicles and buses*	*Total (excludes motor cycles)*	*Motor cycles*
1978	5,462.2	1,359.9	6,822.1	292.4
1979	5,657.2	1,412.7	7,069.9	288.2
1980	5,800.6	1,462.4	7,262.9	310.3
1981	6,021.0	1,544.3	7,565.3	352.3
1982	6,293.8	1,661.5	7,955.3	390.8
1983	6,469.6	1,718.3	8,187.9	402.0

MOTOR VEHICLES(*a*) ON REGISTER PER 1,000 OF POPULATION, STATES AND TERRITORIES

30 June	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1977	431.2	463.4	465.4	495.1	520.5	489.6	333.0	444.5	459.6
1978	443.0	482.2	484.6	502.1	543.5	510.3	383.6	431.2	475.1
1979	454.3	494.0	500.2	507.0	555.8	527.1	377.7	468.8	487.1
1980	467.9	487.0	518.8	515.8	563.8	530.7	372.3	455.2	494.2
1981	480.0	499.6	539.1	522.3	569.3	542.8	408.6	464.4	506.8
1982	499.8	525.1	554.3	532.9	563.2	560.3	420.4	464.0	524.1
1983	504.2	539.9	564.9	541.6	555.9	563.4	433.6	471.5	531.7

(*a*) Excludes motor cycles, tractors, plant and equipment, caravans and trailers.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type of vehicle in preliminary monthly publications, and by type and make of vehicle in monthly and annual publications of Motor Vehicle Registrations.

In these statistics 'registrations' mean registrations processed by the motor vehicle registration authorities in the States and Territories during the period.

Drivers' and riders' licences

At 30 June 1983, the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 3,274,999; Victoria, 2,318,698; South Australia, 930,810; Western Australia, 780,618; Tasmania, 244,209; Northern Territory, 72,972; Australian Capital Territory, 144,984. Particulars are not available for Queensland.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

State or Territory	*Motor cars and station wagons*	*Utilities*	*Panel vans*	*Trucks*		*Other truck type vehicles*	*Buses*	*Total (excludes motor cycles)*	*Motor cycles*
				Rigid	*Articu-lated*				
1983 84									
New South Wales	150,967	11,987	24,554	9,018	857	549	9,023	206,955	16,971
Victoria	126,652	8,577	2,374	13,454	653	561	1,031	153,302	10,067
Queensland	77,289	14,521	7,662	3,094	436	151	1,115	104,268	8,480
South Australia	41,204	3,113	3,498	2,486	249	197	226	50,973	4,671
Western Australia	39,737	3,857	6,996	3,639	193	76	438	54,936	3,969
Tasmania	13,214	1,510	1,007	976	114	70	114	17,005	1,027
Northern Territory	3,396	2,096	452	137	69	20	66	6,236	845
Australian Capital Territory	8,559	479	236	593	10	6	156	10,039	654
Australia	**461,018**	**46,140**	**46,779**	**33,397**	**2,581**	**1,630**	**12,169**	**603,714**	**46,684**
1982 83	453,523	43,682	52,364	31,514	2,426	1,834	4,680	590,023	61,061
1981-82	471,255	52,035	48,009	40,062	3,665	2,218	4,998	622,242	71,691
1980 81	462,487	47,474	37,391	36,485	4,269	1,939	4,170	594,215	70,799
1979-80	451,950	43,826	30,169	33,541	4,282	1,611	3,045	568,424	53,947
1978 79	463,453	41,591	32,068	33,756	4,496	1,891	3,171	580,426	37,278

ROAD TRAFFIC ACCIDENTS

Accidents involving casualties, persons killed, persons injured

Since 1 January 1980 the ABS in the compilation of national statistics on road traffic accidents has adopted a new definition of injury and injury accidents. An injury is defined as injury to any person involved in a road vehicle accident resulting in the injured person being admitted to hospital. An injury accident is therefore defined as a non-fatal road vehicle accident in which at least one injured person was admitted to hospital. Statistics prior to this date on injury accidents and number of persons injured are therefore not comparable.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*) (ADMISSIONS TO HOSPITALS): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED, 1983

				Per 100,000 of mean population			*Per 10,000 motor vehicles registered(b)*		
State or Territory	*Number of accidents*	*Persons killed*	*Persons injured*	*Number of accidents*	*Persons killed*	*Persons injured*	*Number of accidents*	*Persons killed*	*Persons injured*
New South Wales	8,282	966	9,402	155	18	175	29	3	33
Victoria	6,884	664	8,039	171	17	199	31	3	36
Queensland	3,424	510	3,872	139	21	157	23	3	26
South Australia	2,561	266	3,075	191	20	229	34	4	40
Western Australia	2,164	203	2,497	159	15	183	27	3	31
Tasmania	532	70	605	123	16	140	21	3	24
Northern Territory	300	48	369	224	36	275	49	8	60
Australian Capital Territory	204	28	221	86	12	93	18	2	19
Australia	**24,351**	**2,755**	**28,080**	**158**	**18**	**183**	**28**	**3**	**33**

(*a*) Accidents reported to the police or other relevant authority which occurred in public thoroughfares and which resulted in death within thirty days or personal injury to the extent that the injured person was admitted to hospital. (*b*) Number of motor vehicles (excluding tractors, plant and equipment) on register at 30 June 1983.

ROAD TRAFFIC ACCIDENTS INVOLVING FATALITIES

Year	*N.S.W*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Accidents involving fatalities—									
1978	1,222	775	532	254	304	96	58	27	3,268
1979	1,125	750	544	277	257	83	43	24	3,103
1980	1,152	608	508	240	268	96	55	27	2,954
1981	1,130	677	510	196	217	97	63	24	2,914
1982	1,115	631	522	239	203	84	52	26	2,872
1983	877	610	437	235	191	63	45	27	2,485
Persons killed—									
1978	1,384	869	612	291	345	106	68	30	3,705
1979	1,290	847	613	309	279	93	53	24	3,508
1980	1,303	657	557	269	293	100	63	30	3,272
1981	1,292	766	594	222	238	111	70	29	3,322
1982	1,253	709	602	270	236	96	60	26	3,252
1983	966	664	510	266	203	70	48	28	2,755

ROADS

An article dealing with the development of roads in Australia is given in Year Book, No. 60, pages 385–93.

Summary of roads used for general traffic

Proclaimed or declared roads. The table following is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1983. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes (e.g. insufficiency of funds, man-power or materials), construction or maintenance may not keep pace with gazettal of roads, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1983

(Kilometres)

Class of road	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
State Highways and Freeways	10,503	7,544	10,344		7,739	1,946	38,076
Trunk roads	7,098		149	13,421			20,668
Ordinary main roads . . .	18,358	14,852	8,589		7,482	1,290	50,571
Total main roads .	*35,959*	*22,396*	*19,082*	*13,421*	*15,221*	*3,236*	*109,315*
Secondary roads	(*a*)299	–	13,019	–	8,740	282	22,340
Development roads . . .	3,474	–	8,046	–	–	45	11,565
Tourist roads	445	797	–	–	–	172	1,414
Other roads	2,511	(*b*)1,013	–	–	–	–	3,524
Total other roads .	*6,729*	*1,810*	*21,065*	–	*8,740*	*499*	*38,843*
Grand total . . .	**42,688**	**24,206**	**40,147**	**13,421**	**23,961**	**3,735**	**148,158**

(*a*) Metropolitan only. (*b*) Forest roads.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

ALL ROADS OPEN FOR GENERAL TRAFFIC LENGTHS, STATES AND TERRITORIES, 30 JUNE 1983

(Kilometres)

Surface of roads	*N.S.W.(a)(b)*	*Vic.(c)*	*Qld*	*S.A.*	*W.A.(d)*	*Tas.*	*N.T.*	*A.C.T.*	*Total (a)*
Bitumen or concrete .	73,247	63,985	50,363	21,767	37,760	8,444	5,289	2,042	262,897
Gravel, crushed stone or other improved surface	64,899	47,470	35,474		37,078	13,180	5,350	105	203,556
Formed only . . .	36,155	23,403	56,345	80,633	43,355	373	4,814	–	245,078
Cleared only . . .	20,805	21,857	21,217		21,218	213	4,727	–	90,037
Total . . .	**195,127**	**156,715**	**163,399**	**102,400**	**139,411**	**22,210**	**20,180**	**2,147**	**801,589**

(*a*) Excludes road designated but not trafficable. Excludes Lord Howe Island and the unincorporated area of the Western Division. (*b*) Figures as at 31 December 1982. (*c*) Excludes roads coming under the responsibility of the State Electricity Commission (38 km), Melbourne and Metropolitan Board of Works (32 km) and Forests Commission (39,656 km). (*d*) Excludes Forests Department roads.

National Association of Australian State Road Authorities

The National Association of Australian State Road Authorities (NAASRA) was established in 1934. The present member authorities are: Department of Main Roads, New South Wales; Road Construction Authority, Victoria; Main Roads Department, Queensland; Highways Department, South Australia; Main Roads Department, Western Australia; Department of Main Roads, Tasmania; Northern Territory Department of Transport and Works; Commonwealth Department of Housing and Construction.

The Association's objectives are to provide a central organisation where, by co-operative effort, a uniform approach to the improvement, planning and development of the Australian road system can be achieved. National standards for road and bridge construction and maintenance and improved administrative and financial control methods are developed by committees of experienced staff from the authorities, with secretarial services provided by a small staff located in Sydney.

This Secretariat arranges publication of the policies and standards which are widely used by road authorities, local government and universities; co-operates with the Standards Association of Australia on the preparation of national codes of practice; and acts as an Australian centre for contact with overseas road bodies and for the circulation of standards published by them.

The Association is a member of the Permanent International Association of Road Congresses (PIARC) and of the Road Engineering Association of Asia and Australasia (REAAA).

Australian Road Research Board

The Australian Road Research Board (ARRB) is a non-profit-making company founded in 1960 by the National Association of Australian State Road Authorities (NAASRA), and now located at Vermont in Victoria. It is financed by Federal and State Government Road Authorities whose permanent heads made up ARRB's Board of Directors. The Executive Director, a full-time employee and member of the Board, is responsible for administering the Director's policies.

The ARRB regularly undertakes and sponsors road and road transport research over a comprehensive range of subjects and disseminates results to appropriate organisations, engineers and scientists involved in the design, location, construction, upkeep and use of roads. In selecting and monitoring its research projects, and developing a longer term research plan, ARRB is assisted by a senior advisory Steering Committee and four Technical Committees in the areas of Road Technology, Road Users, Road Transport and Local Government, the members of which are experts drawn from government, commerce and education.

ARRB disseminates road research information through its major biennial conferences and regular symposia, seminars and workshops and through its publications which include the *ARRB Conference Proceedings*, a quarterly journal *Australian Road Research*, the *Source Book for Australian Roads*, symposium and workshop papers and various reports and technical manuals arising out of its many research projects. ARRB also maintains a unique library of road literature and operates a computer-based information service which abstracts and indexes Australian road literature in the quarterly *Australian Road Index (ARI)*, and research projects in the annual *Australian Road Research in Progress (ARRIP)*. The machine-readable version of *ARI* and *ARRIP*, called Australian Road Research Documentation (ARRD), is available on AUSINET, the Australian Information Network.

ARRB acts as the Australian member of the Organisation for Economic Co-operation and Development's International Road Research Documentation (IRRD) system, contributing information on Australian literature and projects, IRRD information from all member countries is available to Australians through ARRB's computer search services. ARRB also maintains close contacts with road research organisations in other countries.

AIR TRANSPORT

Department of Aviation

International Organisations. Australia is one of the 153 (as at 30 June 1984) members of the International Civil Aviation Organisation (ICAO). Australia has continued its membership of the (governing) Council since ICAO was established in 1947. Australia is also a member of the 15 man Air Navigation Commission which is responsible for drawing up international standards and procedures for the safety, regularity and efficiency of air navigation. In addition, Australia participates in the Commonwealth Air Transport Council, the South Pacific Regional Civil Aviation Council and the Airport Operators Council International.

International agreements. Australia had air service agreements in force with twenty-eight countries at 30 June 1984. Under these agreements Australia is granted rights to operate services between Australia to and through the countries in question; these rights are exercised by Australia's international airline Qantas. In return, the designated airlines of the other countries which are partners to these agreements are granted traffic rights in Australia. Australia also had air service arrangements granting traffic rights with five other countries at 30 June 1984.

International air services. At 30 June 1984, twenty-six overseas international airlines were operating regular scheduled air services to Australia. These were: Air Caledonie (New Caledonia), Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), Air Niugini (Papua-New Guinea), Air Pacific (Fiji), Air Vanuatu (Vanuatu), Alitalia (Italy), British Airways (Britain), Canadian Pacific Air Lines (Canada), Cathay Pacific Airways (Hong Kong), Continental Airlines (United States of America), Deutsche Lufthansa (Federal Republic of Germany), Flying Tiger Line (United States of America), Garuda Indonesian Airways (Indonesia), Japan Air Lines (Japan), Jugoslovenski Aerotransport (Yugoslavia), KLM Royal Dutch Airlines (Netherlands), Singapore International Airlines (Singapore), Pan American World Airways (United States of America), Philippines Air Lines (Philippines), Royal Brunei Airlines (Brunei), South African Airways (Republic of South Africa), Thai Airways International (Thailand), Malaysian Airways System (Malaysia), and Union de Transport Aeriens (France). Qantas, Australia's international airline, operates a fleet of 23 Boeing 747 jet aircraft. All shares in Qantas Airways Limited are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1983–84 moving into and out of an area which embraces Australia and Norfolk Island. These figures do not include traffic between Australia and Norfolk Island.

AIR TRANSPORT: INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(*a*), 1983–84p

Type of traffic	*Number of flights(b)(c)*	*Passengers*	*Freight tonnes*	*Mail tonnes*
Traffic to Australia—				
Qantas Airways Limited	4,477	975,480	42,800	853
Other airlines	6,124	1,322,981	65,374	6,399
All airlines	**10,601**	**2,298,461**	**108,174**	**7,252**
Traffic from Australia—				
Qantas Airways Limited	4,371	957,800	30,782	2,658
Other airlines	6,076	1,191,563	53,814	1,426
All airlines	**10,447**	**2,149,363**	**84,596**	**4,084**

(*a*) Australia and Norfolk Island. (*b*) Qantas flights leased aircraft from other airlines. (*c*) Difference between scheduled flights into the country is caused by flights leaving the country as non scheduled operators.

Statistics covering the operations of Australia's regular overseas services are shown in the following table. These operations include all stages of Qantas flights linking Australia with overseas countries.

AIR TRANSPORT: OPERATIONS OF AUSTRALIA'S REGULAR OVERSEAS SERVICES

		1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
Hours flown	number	70,065	74,879	73,679	77,910	82,409	83,551
Kilometres flown	'000	59,040	59,109	58,188	61,052	64,898	65,670
Passengers—							
Embarkations	number	1,782,673	1,933,580	1,883,477	2,020,107	2,101,788	2,189,669
Passenger-kilometres	'000	14,317,936	16,296,416	14,876,509	14,818,491	14,477,756	15,247,801
Freight—							
Tonnes uplifted	tonnes	51,373	52,326	53,753	66,036	75,375	84,844
Tonne-kilometres	'000	373,534	412,518	418,849	479,996	485,549	563,268
Mail—							
Tonnes uplifted	tonnes	3,238	3,878	3,919	4,344	4,219	4,410
Tonne-kilometres	'000	32,019	36,226	36,581	39,244	40,058	40,324

The air cargo statistics set out in the following table have been compiled from information contained in import and export documents submitted by importers and exporters, or their agents to the Australian Customs Service as required by the *Customs act 1901.*

AIR CARGO BY TRADE AREA: 1982–83

	Inward cargo		*Outward cargo*	
Trade area	*Gross weight (tonnes)*	*Value ($'000)*	*Gross weight (tonnes)*	*Value ($'000)*
Europe	21,547	1,054,427	4,583	492,446
East Asia	4,498	146,483	6,066	107,032
Japan	6,594	303,364	2,143	69,588
N. America—E. Coast	9,801	559,214	1,184	84,037
N. America—W. Coast	9,059	730,732	3,096	179,156
Central America	73	10,248	72	1,282
S. America—E. Coast	120	7,544	28	3,178
S. America—W. Coast	78	4,437	15	1,054
West Africa	14	2,144	29	871
South and East Africa	383	7,219	494	11,604
Red Sea	3	283	1,069	6,338
Persian Gulf	23	7,739	13,103	37,655
West India	459	16,994	255	3,682
East India	1,026	19,973	81	2,240
South East Asia	3,807	120,353	20,593	160,879

AIR CARGO BY TRADE AREA: 1982-83—*continued*

Trade area	*Inward cargo*		*Outward cargo*	
	Gross weight (tonnes)	*Value ($'000)*	*Gross weight (tonnes)*	*Value ($'000)*
New Zealand	27,056	246,274	14,682	235,314
Papua New Guinea	217	23,384	3,321	59,482
Central Pacific	89	20,356	1,836	23,050
French Pacific	23	2,116	1,906	12,365
Pacific Islands	10	1,409	285	7,058
Trade area not specified	45	2,719	4,364	66,172
Other	2	25	43	225
Total	**84,927**	**3,287,437**	**79,249**	**1,564,707**

Regular air services within Australia

Trunk route services. In June 1981 the Parliament passed a package of legislation consisting of the *Airlines Agreement Act 1981* and the *Airlines Equipment Amendment Act 1981*, as well as the *Australian National Airlines Repeal Act 1981* and the *Independent Air Fares Committee Act 1981*.

The Airlines Agreement Act ratified the 1981 Airlines Agreement between the Commonwealth, Ansett Transport Industries and TAA, which provided for the continuation of the two airline policy in respect of scheduled trunk route passenger services as well as repealing earlier Airlines Agreements. Successive Airlines Agreements have provided the basis for the two airline policy, under which scheduled passenger services on trunk routes are provided by the privately owned Ansett (a division of Ansett Transport Industries (Operations) Pty Ltd, a subsidiary of Ansett Transport Industries Ltd) and the Commonwealth owned Australian National Airlines Commission, trading as Trans-Australia Airlines (TAA). The 1981 Airlines Agreement more clearly defined the role for regional and commuter operators, excluded freight from the ambit of the two airline policy and formally defined the roles of QANTAS, TAA and ANSETT for the provision of international and domestic services respectively.

The Airlines Equipment Amendment Act provided for the import, by specialist freight operators and regional airlines, of large turbo jet aircraft (the Commonwealth's power to control imports is the basic means of upholding the two airline policy). The Australian National Airlines Repeal Act (not subsequently proclaimed) provided for the restructuring of TAA as a public company, and the Independent Air Fares Committee Act provided for the establishment of a Committee with authority over fares for domestic regular public transport passenger services.

At 30 June 1984, the Ansett fleet included 4 Boeing 767s, 12 Boeing 727s, 12 Boeing 737s, 3 Lockheed Electra freighters, 5 Fokker F27 Friendships and 2 Sikorsky helicopters. At the same date, Trans-Australia Airlines operated a fleet of 14 Boeing 727s, 3 Airbus A300s and 12 McDonnell-Douglas DC 9s.

Regional services. In addition to their competitive trunk route services, both Ansett and Trans-Australia Airlines operate limited domestic regional services, which are non-competitive. There are also a number of smaller regional airlines operating from Sydney (Air New South Wales and East-West Airlines), Adelaide (Airlines of South Australia), Perth (Airlines of Western Australia), Cairns (Air Queensland), and Darwin (Airlines of Northern Australia). Regional airlines are so-called because, in general, they serve specific geographic regions. Except for the independently-owned East-West Airlines and Air Queensland, all regional airlines are divisions of Ansett Transport Industries (Operations) Pty Ltd. The larger aircraft used by these regional airlines are Fokker F28 Fellowships and F27 Friendships.

Freight services. In addition to freight services provided by the passenger airlines, IPEC Aviation provides all-freight airline services with Argosy and cargo charter services with a DC 9 aircraft over a limited network including services across Bass Strait.

Commuter services. These are regular public transport services with light aircraft operating to fixed timetables, usually under the authority of a supplementary airline licence. They primarily provide airlinks between towns and country areas over routes which are not served by the major airlines, but many services also feed into capital cities. At 30 June 1984, there were 43 operators of commuter services in Australia, serving some 295 centres. Details of the operations of these commuter services are excluded from the statistics shown in this section.

Scheduled domestic airline services. Statistics of all regular airline services are set out in the following table.

AIR TRANSPORT: OPERATIONS OF REGULAR INTERNAL SERVICES, AUSTRALIA(a)

		1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Hours flown	number	279,385	280,233	284,381	277,199	268,339	245,567
Kilometres flown	'000	134,702	135,409	138,185	137,264	136,769	127,952
Passengers—							
Embarkations	number	10,289,477	10,720,181	11,504,957	11,380,798	11,396,510	10,332,934
Passenger-kilometres	'000	8,180,918	8,618,671	9,485,635	9,747,272	10,155,379	9,327,206
Freight—							
Tonnes uplifted	tonnes	120,887	127,528	129,775	124,955	136,250	141,853
Tonne-kilometres	'000	106,460	110,746	109,603	107,851	117,936	124,796
Mail—							
Tonnes uplifted	tonnes	11,307	13,126	15,053	17,302	16,841	16,767
Tonne-kilometres	'000	10,718	12,518	14,206	16,397	16,515	17,167

(a) Includes flights of all Australian-owned airlines, with the exception of those of Qantas Airways Limited, between airports located within Australia. The domestic carrier, East-West Airlines, commenced services between Sydney and Norfolk Island in March 1977 and particulars of these flights are included from that time. Prior to March 1977, Australia-Norfolk Island flights were operated by Qantas and details of those flights were included with statistics of regular overseas services.

Internal airline passenger embarkation and disembarkation. The statistics set out in the next table have been compiled by aggregating all internal airline passenger traffic loaded and unloaded at each airport. They include passengers on flights between Australia and Norfolk Island. At ports where through-passengers transfer between flights, such passengers are counted as embarking as well as disembarking passengers.

INTERNAL AIRWAYS PASSENGER EMBARKATIONS AND DISEMBARKATIONS AT PRINCIPAL AUSTRALIAN AIRPORTS

Airport	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Sydney	5,274,577	5,539,561	5,961,807	5,858,143	5,917,874	5,338,944
Melbourne	4,552,462	4,743,757	5,104,448	5,046,031	5,038,634	4,500,234
Brisbane	2,252,888	2,282,641	2,521,119	2,636,552	2,758,922	2,518,841
Adelaide	1,729,030	1,801,084	1,931,395	1,930,219	1,852,906	1,635,544
Perth	792,768	830,273	910,637	929,949	1,017,173	995,987
Canberra	966,388	945,260	967,803	872,223	820,943	786,449
Coolangatta	409,151	457,789	570,137	632,791	648,384	553,886
Hobart	437,948	455,577	473,567	474,115	475,127	433,910
Cairns	307,525	345,344	387,095	426,064	442,524	387,895
Townsville	353,522	363,285	378,884	384,587	396,622	377,186
Launceston	353,596	387,456	390,215	380,512	376,536	356,261
Darwin	225,052	249,056	278,669	290,789	287,210	266,268
Mackay	254,954	253,229	261,982	197,892	159,718	160,517

General aviation activity, which covers all flying other than scheduled airline operations has grown rapidly throughout Australia in recent years and is an important sector of the Australian aviation industry. Hours flown by general aviation during 1981–82 were estimated at 1.77 million, approximately 1.5 per cent more than the previous year.

Aerodromes

The number of aerodromes throughout Australia and its external territories at 30 June 1984 was 441. Seventy-one were owned by the Commonwealth Government and 370 by local authorities and private interests. The number of licensed helipads throughout Australia and its territories is 4. Capital expenditure on aerodrome and building construction was $68.8 million in 1983-84. Maintenance expenditure on Commonwealth Government-owned aerodromes during 1983-84 was $11.87 million. Expenditure on development and maintenance grants to licensed aerodromes participating in the Local Ownership Plan totalled $34.22 million.

Airway facilities

A total of 470 navigational aids were in service at 30 June 1984. The total includes 254 non-directional beacons (NDB) (includes 224 standard NDB's and 30 locators), 108 distance measuring equipment (DME), 11 international distance measuring equipment (DMEI), 75 VHF omni-directional ranges (VOR), 17 instrument landing systems (ILS) and five twin locator approach systems.

One hundred and eighty-six aerodromes are now equipped with night landing facilities. One hundred and twenty-three Australian-designed 'T' systems (T-VASIS) are operating. Seven long-range surveillance radars, two short range and seven secondary surveillance radars are also in operation. There are thirty-two fully-equipped Air Traffic Control Centres and forty-three flight service units in operation.

Air transport registrations, licences, etc., in force in Australia

At 30 June 1984 there were 6,801 aircraft registered in Australia. At the same time there were also 61,528 aeroplane pilots' licences in force, of which 27,381 were private pilots' licences, 5,705 commercial pilots' licences, 2,030 senior commercial pilots' licences, 2,435 air transport pilots' licences, and 23,977 student pilots' licences. In addition there were 1,743 helicopter pilots' licences in force of which 161 were private pilots' licences, 748 commercial pilots' licences, 98 senior commercial pilots' licences and 736 student pilots' licences. There were also 794 flight engineer licences, and 8 flight navigator licences in force.

Accidents and casualties

AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES(*a*), AUSTRALIA(*b*)

	1978	*1979*	*1980*	*1981*	*1982*	*1983*
Number	48	37	48	39	51	44
Persons killed	58	35	61	53	53	47
Persons seriously injured	35	29	33	33	35	29

(*a*) Accidents involving civil aircraft (including registered gliders) which resulted in death or serious injury. Excludes parachutists and casualties involving non-registered aircraft. (*b*) Excludes accidents outside Australia involving aircraft on the Australian register; includes all accidents to overseas registered aircraft that occur in Australia.

POSTAL, TELECOMMUNICATION AND RADIOCOMMUNICATION SERVICES

In this section, particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated.

Department of Communications

The Postal and Telecommunications Department was created on 22 December 1975. It replaced the Postmaster-General's Department, assuming those PMG functions remaining after the formation of the Postal and Telecommunications Commissions on 1 July 1975. Following the Federal election in November 1980, the name of the Department was changed to the Department of Communications. A major activity of the Department is the administration of the *Wireless Telegraphy Act 1905* which concerns the regulation and management of the radio frequency spectrum for radiocommunications within the Commonwealth and its Territories.

The Department also undertakes planning for the development of broadcasting and television services in Australia and the determination of standards and practices for technical equipment used in broadcasting and television services for which formal responsibility attaches to the Minister for Communications pursuant to the provisions of the Broadcasting and Television Act. The Department is closely involved in the development of the Australian Communications Satellite System (ACSS), in association with other government departments and agencies in particular AUSSAT PTY LTD, a government-owned company formed to own and operate ACSS.

Another function of the Department is to provide policy advice to the Minister on postal, telegraphic, telephonic, broadcasting and other like services which are subject to legislation for which the Minister for Communications is responsible.

Authorities responsible to the Minister for Communications have been established to provide within Australia a network of facilities which enable people and organisations:

- to send letters, printed matter, parcels and money in Australia and overseas and to receive such items within Australia from overseas;
- to converse by telephone in Australia and overseas;
- to send and receive written messages, data pictures and other visual matter by electrical means within Australia and to and from overseas;
- to relay on the telecommunications network, radio and television broadcasts emanating within Australia and those on relay to and from overseas.

Australian Postal Commission

The Australian Postal Commission was established under the *Postal Services Act 1975*. It commenced operations on 1 July 1975 and trades under the name Australia Post.

Under the *Postal Services Act 1975*, the Australian Postal Commission is required to operate Australia's postal services in such a manner as will best meet the social, industrial and commercial needs of the Australian people. In performing its functions, the Commission is required to have regard for the special needs for postal services of Australian people who reside or carry out business outside the cities. It is also required to raise sufficient revenue to cover operating expenditure and to fund at least half of its capital expenditure.

Australia Post provides surface and airmail services within Australia and to and from other countries. Special services provided include priority paid mail, business reply post, cash-on-delivery, certified mail, freepost, messenger delivery, a security mail service and a number of reduced rate services. From February 1984, it has operated an express courier service and an electronic mail service.

Australia Post operates a money transfer service, sells postal products such as padded post bags, postal stationery and philatelic items, and acts as agent on behalf of Federal, State and local Goverment departments and authorities and, since February 1984, for private sector principals.

Australia Post is the authority for the issue of postage stamps throughout the Commonwealth of Australia and its external territories.

The following tables give details of Australia Post's financial results, services and operations for 1983–84. Selected tables show figures for earlier periods.

AUSTRALIAN POSTAL COMMISSION: PROFIT AND LOSS, 1979 TO 1984
($'000)

Year ended 30 June—	*1979*	*1980*	*1981*	*1982*	*1983*	*1984*
Revenue—						
Mail services	528,978	582,200	668,676	767,843	870,719	971,676
Commission on agency services	93,171	82,189	83,471	86,935	90,113	90,449
Postal money order service	5,434	6,350	7,758	10,059	10,544	11,632
Other revenue	18,907	19,442	22,147	22,591	28,058	21,993
Total	**646,490**	**690,181**	**782,052**	**887,428**	**999,434**	**1,095,750**
Expenditure—						
Labour and related expenditure	n.a.	n.a.	n.a.	n.a.	774,662	831,600
Carriage of mail by contractors	n.a.	n.a.	n.a.	n.a.	83,665	92,984
Depreciation and interest	n.a.	n.a.	n.a.	n.a.	15,056	15,299
Other expenditure	n.a.	n.a.	n.a.	n.a.	117,257	131,716
Total	**623,901**	**678,495**	**794,795**	**(*a*)906,650**	**990,640**	**1,071,599**

(*a*) Includes an abnormal adjustment to implement new depreciating accounting arrangements.

AUSTRALIAN POSTAL COMMISSION: PROFIT AND LOSS STATEMENT FOR THE YEAR ENDED 30 JUNE 1984
($'000)

Revenue—	
Mail services	971,676
Commission on agency services	90,449
Postal money order service	11,632
Other revenue	21,993
Total	*1,095,750*
Expenditure—	
Labour and related expenditure	831,600
Carriage of mails by contractors	92,984
Accommodation	41,364
Stores and supplies	41,566
Depreciation	9,886
Interest	5,413
Other operating expenditure	48,786
Total	*1,071,599*
Operating Profit	24,151
Appropriations—	
Accumulated loss brought forward	(11,485)
Operating profit for the year	24,151
Accumulated profit carried forward	12,666

AUSTRALIAN POSTAL COMMISSION: SUMMARY OF TRANSACTIONS AFFECTING FIXED ASSETS, 1983–84

($'000)

Class of assets	*Balance at 1 July 1983*	*Additions in the year*	*Asset expenditure written out*	*Balance at 30 June 1984 (a)*
Land	38,915	2,442	129	41,228
Buildings	260,336	25,858	1,676	284,518
Motor vehicles	20,516	6,168	2,829	23,855
Plant and Equipment	43,400	15,941	647	58,694
Total of fixed assets	*363,167*	*50,409*	*5,281*	*408,295*
Less accumulated depreciation	70,289	—	—	77,087
Net book value of fixed assets	**292,878**	—	—	**331,208**

(*a*) At cost.

AUSTRALIAN POSTAL COMMISSION: ANALYSIS OF TRANSACTIONS AFFECTING ACCUMULATED DEPRECIATION, 1983–84

($'000)

Class of asset	*Balance at 1 July 1983*	*Depreciation provided for in 1983–84*	*Accumulated depreciation written out*	*Balance at 30 June 1984*
Buildings	46,508	4,513	803	50,218
Motor vehicles	9,108	2,625	1,900	9,833
Plant and Equipment	14,673	2,748	385	17,036
Accumulated depreciation	**70,289**	**9,886**	**3,088**	**77,087**

AUSTRALIAN POSTAL COMMISSION: PERSONS ENGAGED IN PROVIDING POSTAL SERVICES AT 30 JUNE 1983 AND 1984

	H.Q.	*N.S.W. (Incl. A.C.T.)*	*Vic.*	*Qld*	*S.A. (Incl. N.T.)*	*W.A.*	*Tas.*	*Aust. 1984*	*Aust. 1983*
Official staff (*a*)—									
Full-time Permanent	641	11,651	8,057	4,130	2,631	2,304	664	30,078	29,290
Full-time Temporary	11	1,540	857	214	78	122	53	2,875	3,293
Part-time	1	1,154	535	311	315	296	88	2,700	2,626
Other staff (*b*)	—	2,995	1,836	1,683	846	678	379	8,417	8,488
Total	**653**	**17,340**	**11,285**	**6,338**	**3,870**	**3,400**	**1,184**	**44,070**	**43,697**

(*a*) 'Official Staff' are those whose employment is governed by the *Postal Services Act* 1975. (*b*) Includes persons who are not employed under the Postal Services Act, but who are employed on the basis of business transacted. Also included are persons or organisations who hold road mail service contracts with the Australian Postal Commission.

AUSTRALIAN POSTAL COMMISSION: MAIL DELIVERY NETWORK AND POST OFFICES AT 30 JUNE 1983 AND 1984

	N.S.W. (incl. A.C.T.)	*Vic.*	*Qld*	*S.A. (incl. N.T.)*	*W.A.*	*Tas.*	*Aust. 1984*	*Aust. 1983*
Contract road services	1,552	748	1,085	267	403	188	4,243	4,097
Households receiving mail	2,017,499	1,419,756	903,537	522,435	478,420	146,573	5,488,220	5,255,674
Businesses receiving mail	191,091	130,578	90,817	47,684	46,222	12,940	519,322	485,568
Post Offices—								
Official—								
At 1 July 1983	504	331	210	151	158	41	1,395	1,412
At 30 June 1984	499	333	211	148	156	41	1,388	1,395
Non-official—								
At 1 July 1983	1,086	882	544	446	295	195	3,448	3,494
At 30 June 1984	1,072	877	538	443	280	192	3,402	3,448
Total post offices	*1,571*	*1,210*	*749*	*591*	*436*	*233*	*4,790*	*4,843*

AUSTRALIAN POSTAL COMMISSION: TOTAL POSTAL ARTICLES HANDLED
('000)

Year ended 30 June	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total postal articles handled*
1979	2,267,596	87,757	149,278	2,504,631
1980	2,379,953	94,826	156,573	2,631,352
1981	2,503,450	107,798	155,642	2,766,890
1982	2,606,124	105,154	165,276	2,876,554
1983	2,669,363	111,050	163,575	2,943,988
1984	2,764,113	106,585	164,362	3,035,060

AUSTRALIAN POSTAL COMMISSION: ORDINARY POSTAL ARTICLES(*a*)
('000)

	Standard articles				*Non-standard articles*			
Year ended 30 June	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*
1982	2,221,294	87,501	121,929	2,430,724	353,669	14,920	38,188	406,777
1983	2,292,193	93,262	121,110	2,506,565	345,287	15,278	37,856	398,421
1984	2,376,733	89,544	122,084	2,588,361	355,599	14,356	37,395	407,350
STATES—YEAR ENDED 30 JUNE 1984								
New South Wales (incl. A.C.T.)	966,059	32,574	57,574	1,056,207	145,145	7,302	14,274	166,721
Victoria	622,338	30,585	44,586	697,509	110,860	3,946	14,759	129,565
Queensland	347,049	8,187	6,316	361,552	47,482	1,031	4,773	53,286
South Australia (incl. N.T.)	196,103	8,494	4,721	209,318	23,588	782	1,075	25,445
Western Australia	195,006	9,213	8,043	212,262	22,113	1,247	2,255	25,615
Tasmania	50,175	491	844	51,513	6,411	48	259	6,718

(*a*) Includes Certified, Messenger Delivery and Priority Paid Mail.

AUSTRALIAN POSTAL COMMISSION: REGISTERED ARTICLES(*a*) AND PARCELS
('000)

	Registered articles				*Parcels*			
Year ended 30 June	*Posted for delivery in Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*	*Posted for delivery in Australia*	*Posted for places abroad*	*Received from abroad*	*Total articles*
1982	2,938	1,458	2,854	7,250	28,223	1,275	2,305	31,803
1983	2,956	1,296	2,696	6,948	28,927	1,214	1,913	32,054
1984	2,801	1,301	2,689	6,789	28,980	1,384	2,196	32,560
STATES—YEAR ENDED 30 JUNE 1984								
New South Wales	957	673	1,706	3,336	11,603	570	986	13,159
Victoria	687	418	816	1,921	7,963	454	804	9,220
Queensland	499	66	40	605	4,536	127	159	4,822
South Australia	295	65	19	379	2,182	89	82	2,353
Western Australia	257	77	106	440	2,156	135	142	2,433
Tasmania	106	2	–	108	541	9	23	573

(*a*) Totals include Certified, Messenger Delivery and Priority Paid Mail.

AUSTRALIAN POSTAL COMMISSION: SPECIAL SERVICES: ARTICLES HANDLED
('000)

Year ended 30 June	*Certified mail*	*Messenger delivery*	*Priority paid mail*
1982	5,897	1,434	2,793
1983	6,178	1,459	2,711
1984	6,064	1,329	6,760
STATES—YEAR ENDED 30 JUNE 1984			
New South Wales	2,250	1,038	4,142
Victoria	1,991	163	1,369
Queensland	993	39	627
South Australia	606	43	290
Western Australia	500	41	247
Tasmania	264	5	85

Telecommunications services within Australia

The Australian Telecommunications Commission (Telecom Australia) commenced operation on 1 July 1975, taking over the telecommunications functions of the former Postmaster-General's Department.

The functions of the Commission as set out in the *Telecommunications Act 1975* are:

- to plan, establish, maintain and operate telecommunications services within Australia;
- to operate such other services as the Commission is authorised by this Act to operate;
- to provide, at the request of the Australian Government, technical assistance outside Australia in relation to the planning, establishment, maintenance and operation of telecommunications services in countries outside Australia; and
- to do anything incidental or conducive to the performance of any of the preceding functions.

Financial results

The following tables show the earnings and expenses situation for the latest available three years of the Commission's operations.

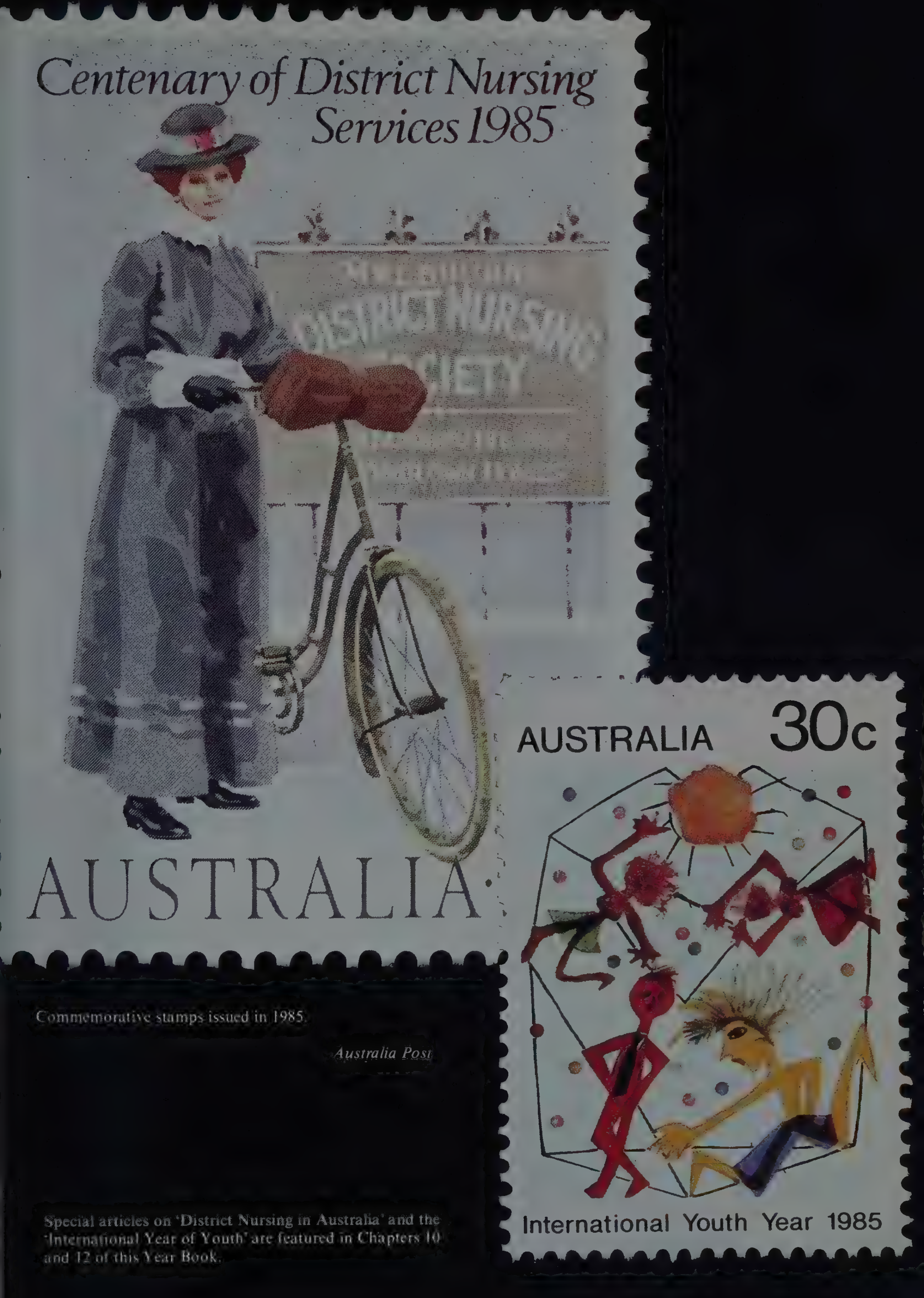
AUSTRALIAN TELECOMMUNICATIONS COMMISSION: REVENUE
($'000)

Year ended 30 June—	*1982*	*1983*	*1984*
Telephone rentals	833,201	1,001,212	1,165,912
Telephone calls	1,761,610	2,011,546	2,328,977
Telephone connections and rearrangements	142,727	157,750	426,112
Telegrams	30,165	28,998	27,424
Telex rentals	40,020	56,748	59,443
Telex calls	32,488	34,556	35,012
Other earnings(*a*)	244,166	345,038	177,851
Total	**3,084,377**	**3,635,848**	**4,220,731**

(*a*) Main items included in this classification are: advertising in Yellow Pages directories; sales of customer equipment; telephone installation charges; and connection fees.

AUSTRALIAN TELECOMMUNICATIONS COMMISSION: EXPENDITURE
($'000)

Year ended 30 June—	*1982*	*1983*	*1984*
Installation and maintenance of customer services	n.a.	444,796	722,927
Maintenance of network plant	n.a.	414,570	476,807
Marketing and operations	n.a.	728,867	823,531
General and administrative	238,097	261,554	281,660
Accommodation	128,527	155,369	174,258
Depreciation	577,216	711,853	570,829
Interest	518,187	656,172	861,937
Total	**2,809,260**	**3,373,181**	**3,911,949**


Centenary of District Nursing Services 1985
DISTRICT NURSING SOCIETY
AUSTRALIA
AUSTRALIA
30c
International Youth Year 1985

Commemorative stamps issued in 1985.

Australia Post

Special articles on 'District Nursing in Australia' and the 'International Year of Youth' are featured in Chapters 10 and 12 of this Year Book.

Members of the first all Australian expedition to conquer Mt. Everest in October 1984, shown here on the ridge above Advance Base Camp looking across Rongbuk Glacier.

Tim Macartney-Snape

Expedition team members photographed in the Great Couloir, during their ascent of Everest.

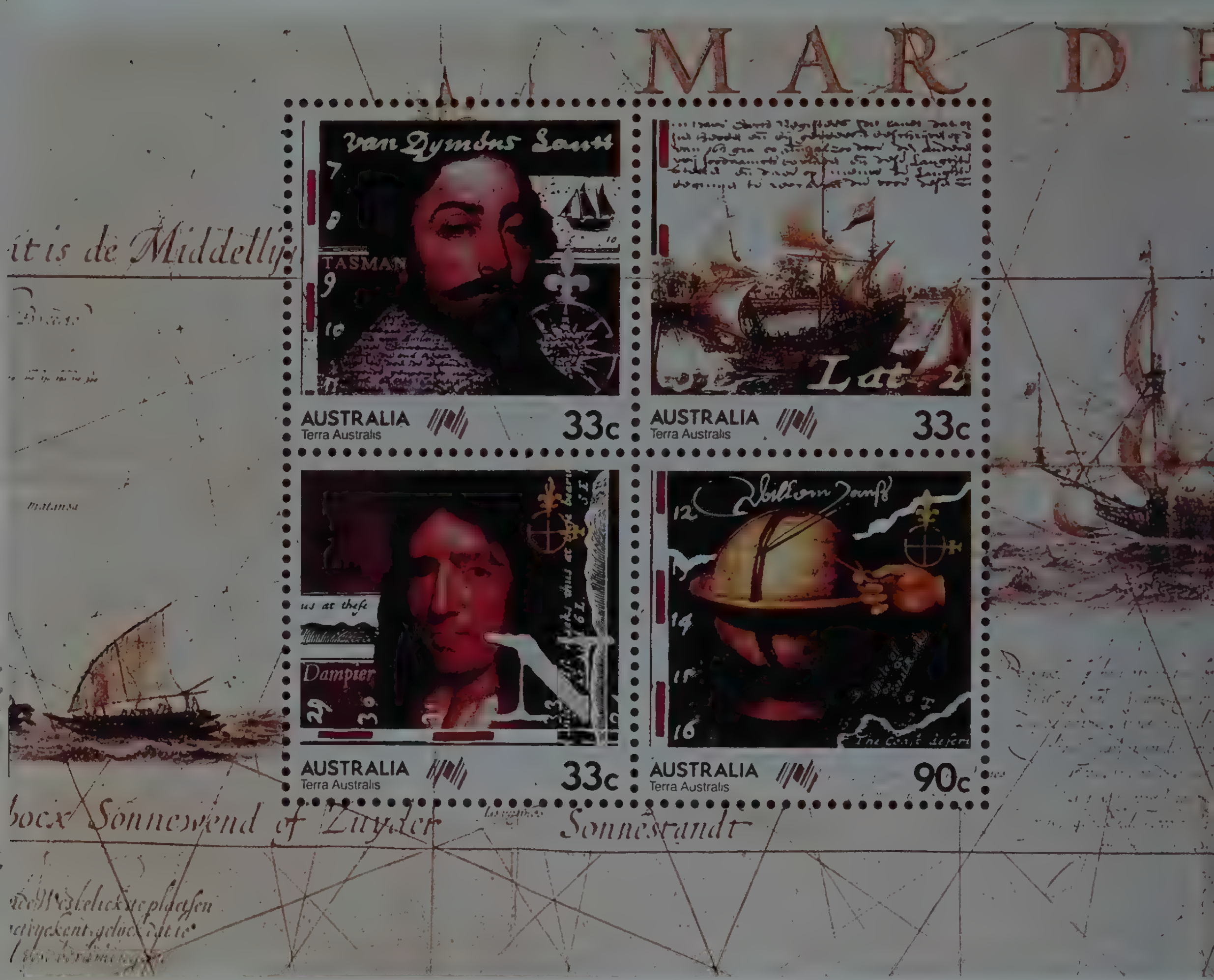
Tim Macartney-Snape

Ayers Rock, Uluru National Park, is a well known feature of the Australian landscape. The number of tourists to visit the Park in 1983-84 was estimated at 110,000—See chapter 26 for special article on 'Tourism in Australia'.

Australian Information Service

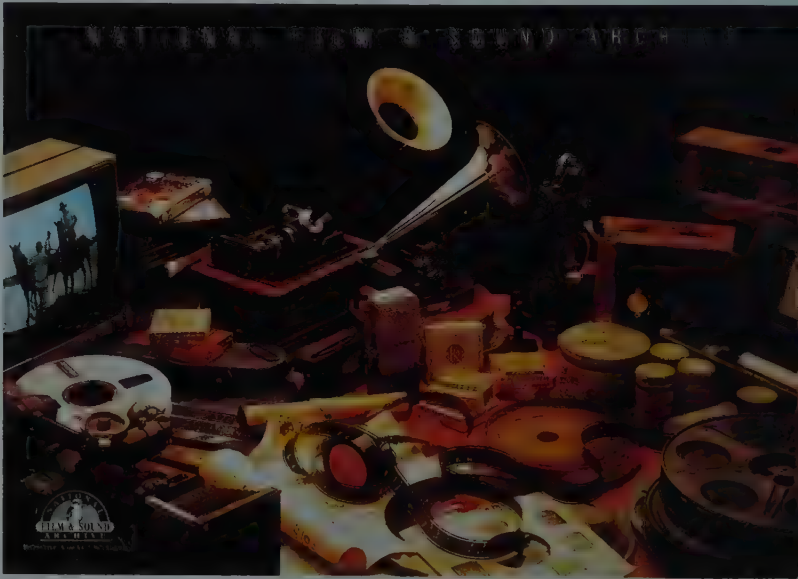
'Sunrise' taken from a cave at the base of Ayers Rock.

Australian Information Service


MAR DE
TASMAN
Dampier
AUSTRALIA
Terra Australis
33c
AUSTRALIA
Terra Australis
33c
AUSTRALIA
Terra Australis
33c
AUSTRALIA
Terra Australis
90c
Sonnestrandt

The first miniture sheet issued by Australia Post for the Australian Bicentennial Collection incorporates the four 'Terra Australis Navigators' stamps.

Australia Post


NATIONAL FILM & SOUND ARCHIVE

The poster commissioned in honour of the National Film and Sound Archive opening in October 1984 features a collection of memorabilia which reflect the history of Australian film, television and recorded sound.

National Film & Sound Archive

A brief history of the development of telecommunications in Australia is shown in Year Book No. 59, pages 378–82. Common internal telecommunication operations comprise telephone, telegram, telex and data services. The following tables give details of these services.

TELEPHONE SERVICES IN OPERATION AT 30 JUNE 1984

	N.S.W. (Incl. A.C.T.)	*Vic.*	*Qld*	*S.A. (Incl. N.T.)*	*W.A.*	*Tas.*	*Australia*
Ordinary exchange services—							
Automatic	1,998,297	1,482,666	788,451	516,636	466,269	139,157	5,391,476
Manual	13,759	—	6,063	2,791	237	—	22,850
Total	*2,012,056*	*1,482,666*	*794,514*	*519,427*	*466,506*	*139,157*	*5,414,326*
Party line services—							
Automatic	359	—	392	16	50	—	817
Manual	1,147	—	896	185	12	—	2,240
Total	*1,506*	—	*1,288*	*201*	*62*	—	*3,057*
Private branch exchange services—							
Automatic	162,306	103,938	53,355	35,554	35,706	11,051	401,910
Manual	380	—	130	53	14	—	577
Total	*162,686*	*103,938*	*53,485*	*35,607*	*35,720*	*11,051*	*402,487*
Public telephones—							
Automatic	11,058	6,487	5,406	3,086	2,979	1,111	30,127
Manual	305	—	189	59	44	—	597
Total	*11,363*	*6,487*	*5,595*	*3,145*	*3,023*	*1,111*	*30,724*
Total all services—							
Business automatic	555,077	413,590	227,772	134,101	138,085	37,873	1,506,498
Business manual	6,642	—	3,786	1,500	215	—	12,143
Non-business automatic	1,616,943	1,179,501	619,834	421,191	366,919	113,446	4,317,834
Non-business manual	8,949	—	3,490	1,588	92	—	14,119
Total Services	**2,187,611**	**1,593,091**	**854,882**	**558,380**	**505,311**	**151,319**	**5,850,594**

TELEPHONE INSTRUMENTS IN SERVICE

At 30 June—	*N.S.W. (Incl. A.C.T.)*	*Vic.*	*Qld*	*S.A. (Incl. N.T.)*	*W.A.*	*Tas.*	*Australia*
1982	3,232,912	2,200,273	1,047,193	730,349	652,825	191,531	8,055,083
1983	3,091,583	2,387,943	1,103,479	765,536	690,417	227,704	8,266,662
1984	3,069,260	2,357,539	1,169,522	729,228	771,795	231,370	8,328,714
Number per 100 population at 30 June	54.4	57.9	46.7	52.7	51.7	52.9	53.6

LOCAL AND TRUNK LINE TELEPHONE CALLS

Year ended 30 June—	*1982*	*1983*	*1984*
Effective paid local calls	5,451,452,000	5,596,916,000	6,174,595,000
Local calls per service	1,044	1,021	1,077
Trunk line calls	785,466,000	837,171,000	933,621,000
Trunk lines calls per service	150	153	163
Total calls	**6,236,918,000**	**6,434,087,000**	**7,108,216,000**

DATEL SERVICES(*a*)—DATA MODEMS IN OPERATION

At 30 June—	*N.S.W. (Incl. A.C.T.)*	*Vic.*	*Qld*	*S.A. (Incl. N.T.)*	*W.A.*	*Tas.*	*Australia*
1982	24,116	15,070	6,624	4,076	4,635	1,675	56,196
1983	29,420	18,913	8,716	5,390	5,601	2,151	70,191
1984	34,867	22,570	10,516	6,581	6,318	2,397	83,249

(*a*) A Datel service is a combination of a particular type of circuit (either switched network or private line) plus the necessary Modulator Demodulator (Modem) unit to provide data transmission facilities for a specified transmission rate.

Subscriber Trunk Dialling (STD) facilities were introduced during the year 1961–62. For the year ended at 30 June 1984, 96.0 per cent of trunk calls were made by STD.

Telegrams

Telegrams can be lodged at any post office or telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be dispatched from any subscriber's telephone or telex service. The number of telegrams of various types transmitted within Australia is set out in the following table.

TELEGRAM TRAFFIC

Year ended 30 June—	*1982*	*1983*	*1984*
Ordinary	3,808,525	3,525,243	3,201,625
Urgent	133,758	98,523	99,019
Meteorological	315,753	313,074	258,589
Service	200,580	113,900	109,674
Total telegrams	**4,458,616**	**4,050,740**	**3,668,907**

Telex

Particulars of the operations of the telex network, which are additional to the telegraph traffic shown above, are as follows.

TELEX NETWORK SERVICES AND INTERNAL CALLS

Year ended 30 June—	*Number of services*	*Internal calls during the year*
1982	37,802	44,209,000
1983	40,810	45,492,000
1984	42,186	46,725,000

Further detailed statistics are contained in the Australian Telecommunication Commission's Annual Reports.

Overseas telecommunications services

The Overseas Telecommunications Commission (Australia) (OTC), established by the Overseas Telecommunications Act 1946, is a Commonwealth Statutory Authority responsible for the establishment, maintenance, operation and development of all public telecommunications services between Australia and other countries, between Australia and its external territories and with ships at sea. It has a specific responsibility, under section 38A, to make its services available at the lowest possible rates of charges. OTC is responsible to the Commonwealth Parliament through the Minister for Communications.

Telephone, telex, public message telegram, switched data and leased circuit services are provided to most countries and places throughout the world by means of submarine cables, communications satellites and, in a decreasing number of cases, short wave radio. Television relay is provided to and from countries with access to satellite communications facilities. Other services include INTERPLEX (a large scale, common-use, leased-message switching system), MIDAS (a multimode international data acquisition service), OVERSEASFAX (an international facsimile service for document transfer), INTERTEL (a comprehensive public message service for small businesses), MINERVA (an international electronic messaging system) and OTC NET (an international corporate voice/data network using private leased circuits).

International consultation

OTC participates in the Commonwealth Telecommunications Organisation (CTO), the International Telecommunication Union (ITU), the International Telecommunications Satellite Organisation (INTELSAT) which owns and operates the international telecommunications satellite system, and the International Maritime Satellite Organisation (INMARSAT), which operates an international satellite system for the provision of high-grade telecommunications, including distress and search and rescue communications, with ships at sea. OTC also participates in the regional telecommunications organisations such as the Asia-Pacific Telecommunity and the South Pacific Regional Telecommunications Meetings (SPECTEL).

Establishments

The Commission's Head Office is in Sydney and it has offices in Canberra, Melbourne and Brisbane. The Commission owns and operates International Gateway terminals at Paddington and Broadway in

Sydney which interface with the national telecommunications network. A third International Gateway terminal is being established at Scoresby, near Melbourne, which will become operational in 1987.

The Commission also owns and operates cable stations at Sydney, Cairns (Qld), Guam in the Mariana Islands and at Norfolk Island; satellite earth stations at Carnarvon (W.A.), Ceduna (S.A.), Healesville (Vic.) and Moree (N.S.W.); international radio stations at Doonside and Bringelly (N.S.W.) and at Gnangara (W.A.); and fourteen coast radio stations at points around the Australian coast for communicating with ships at sea. A new cable station for the Australia–Indonesia–Singapore (A–I–S) cable system at Gnangara, Perth, will be brought into service in 1986.

Submarine cables

OTC is a part owner of the following submarine cables (the year in which they opened for service is in brackets): COMPAC, Auckland–Suva–Hawaii (1963); SEACOM, Sydney–Madang–Guam–Hong Kong (1967); TRANSPAC II, Hawaii Guam Okinawa (Japan) (1975); HAW III, Hawaii–U.S. Mainland (1975); TASMAN, Sydney–Auckland (1976); A–PNG, Sydney–Port Moresby (1976); OLUHO, Okinawa (Japan)–Philippines–Hong Kong (1977); ASEAN P–S, Philippines–Singapore (1978); ASEAN I–S, Indonesia–Singapore (1980) and IOCOM, Penang–Madras (1981); ASEAN M–S–T, Malaysia–Singapore–Thailand (1983); and ANZCAN, Sydney–Norfolk Island–Aukland–Suva–Hawaii–Vancouver (1984).

In 1984 the Government gave approval for OTC to participate in the construction of three new Indian Ocean cable systems: A I–S, Perth–Jakarta–Singapore; SIN–HON–TAI, Singapore–Hong Kong–Taipei; and SEA–ME–WE, Singapore–Middle East–Europe. OTC's investment in the three systems, which will enter service in 1985–86, is approximately $135 million.

Satellites

OTC is the sixth largest shareholder in INTELSAT which operates communication satellites over the Indian, Pacific and Atlantic Oceans, and a major shareholder in INMARSAT (see above). INTELSAT satellites now carry approximately two-thirds of Australia's international telecommunications and, through OTC, provide capacity through which the remote area television service is provided by the ABC.

1983–84 Statistics

As at 31 March 1984, OTC staff totalled 2,407; revenue for the previous 12 months was $339 million and profit before tax was $63.9 million. Telephone service, which is available to 233 overseas destinations, provided about 70 per cent of revenue, telex about 14 per cent and telegraph about 3.6 per cent. International Subscriber Dialling (ISD), by which customers can dial their own overseas telephone calls, is now available to approximately 159 destinations. Approximately 99 per cent of international telex calls from Australia are now automatically subscriber connected.

More detailed statistics are contained in the OTC Annual Report.

Facilities to match growth

The high growth in demand for the Commission's services requires that the capacity of its major transmission and switching plant be at least doubled every three years. The OTC is applying computer techniques extensively in a number of its services, including telephone, telex, MIDAS (multimode international data acquisition service) and INTERPLEX (private message-switched networks).

Charges

The long-haul international telex service tariff was reduced but some increases were necessary in charges for minor services; these changes operated from 1 February 1984. A new scale of tariffs for certain enhancements to the international telex service, resulting from the availability of store and forward facilities, was introduced on 1 August 1984.

Detailed information on OTC

The Commission reports on its operations to Parliament through its Minister about September each year. Traffic, financial and other information is contained in its Annual Report, copies of which are available on request from the OTC.

International telecommunication traffic

The following table shows particulars of overseas telecommunication traffic between Australia and overseas countries for the years ended 31 March 1983 and 1984.

INTERNATIONAL TELECOMMUNICATION SERVICES: YEARS ENDED 31 MARCH 1983 AND 1984

		Transmissions					
		From Australia		*To Australia*		*Total*	
Service		*1982–83*	*1983–84*	*1982–83*	*1983–84*	*1982–83*	*1983–84*
Telephone	'000 paid minutes	132,375	153,350	97,600	113,325	229,975	226,675
Telex	'000 paid minutes	26,325	28,000	26,275	28,725	52,600	56,725
Television programs	paid minutes	25,850	12,591	85,525	53,880	(*a*)120,782	(*b*)69,278
Telegraph services	'000 words	36,141	25,990	25,947	18,925	62,088	44,915

(*a*) Includes 9,407 paid minutes of television programs distributed within Australia by OTC. (*b*) Includes 2,807 paid minutes of television programs distributed within Australia by OTC.

Coastal radio service

During the year ended 31 March 1984 the Coastal Radio Service handled 8,775,000 paid words to ships and 4,570,000 words from ships. Ship calls over the radiotelephone service amounted to 578,000 paid minutes and the radiotelex service handled 131,000 paid minutes. Usage of radiotelephone and radiotelex leased services amounted to 4,996 and 3,209 hours respectively.

Radiocommunication stations authorised

At 30 June 1978 there were 460,171 civil radiocommunication stations authorised for operation in Australia and its Territories. Of these, 6,316 were stations established at fixed locations, 24,000 were land stations which were established at fixed locations for communication with mobile stations, 13 were space and broadcasting stations, 420,442 were mobile stations and 9,400 were amateur stations. Particulars of broadcasting stations are shown on page 468.

BROADCASTING AND TELEVISION

Radio and television broadcasting falls within the jurisdiction of the Commonwealth Government and, pursuant to the *Broadcasting and Television Act 1942*, is one of the responsibilities of the Minister for Communications. Federal bodies which are involved include the Australian Telecommunications Commission, the Australian Broadcasting Corporation (ABC), the Special Broadcasting Service, the Australian Broadcasting Tribunal, the Department of Communications and the Overseas Telecommunications Commission.

Basically, the Australian broadcasting system is comprised of the following types of stations:

- national radio and television stations broadcasting programs produced by the Australian Broadcasting Corporation;
- commercial radio and land television stations operated by companies under licence;
- public radio stations operated by corporations under licence on a non-profit basis; and
- stations operated under the aegis of the Special Broadcasting Service.

As from 1 January 1977, the Minister for Communications assumed the responsibility for broadcasting planning, including all matters relating to the technical operation of stations, and for the investigation of interference to the transmission and reception of programs.

The Commercial Radio and Television Service

Commercial radio and television stations are operated by companies under licences granted by the Australian Broadcasting Tribunal and with technical operating conditions determined by the Minister for Communications. The stations obtain income from the broadcasting of advertisements. At 30 June 1984 there were 137 commercial radio stations in operation in Australia. Call signs for radio stations are prefixed by numerals indicating each State of Australia. (2—New South Wales, 3—Victoria, 4—Queensland, 5—South Australia, 6—Western Australia, 7—Tasmania, 8—Northern Territory). In addition there were fifty commercial television stations and 130 commercial television translator stations in operation in Australia. A television translator station is a station of low power designed to receive the signals of another station and re-transmit them; it does not originate programs. There are nine limited coverage repeater stations in Australia operated by mining companies which transmit programs recorded on magnetic tape.

The Public Broadcasting Service

The Broadcasting and Television Act also makes provision for the grant of licences for the operation of public radio and television stations. At 30 June 1984, 50 public radio stations were broadcasting programs ranging from fine music to ethnic languages and programs produced by and directed towards specific communities. A number of public radio stations are associated with tertiary educational institutions. There are no public television services in operation.

The Special Broadcasting Service

The Special Broadcasting Service (SBS) was established by the Commonwealth Government on 1 January 1978 to provide multilingual radio services and, if authorised by regulations, to provide multilingual television services. A regulation authorising the provision of mutilingual television services was gazetted in August 1978. The Service is also empowered by the *Broadcasting and Television Act* 1977 to provide broadcasting and television services for such special purposes as are prescribed by the Government.

In carrying out its functions the SBS provides:

- *multilingual broadcasting services to*:
  - the Melbourne metropolitan area and Geelong through radio station 3EA which broadcasts in 42 languages for 126 hours per week
  - the Sydney metropolitan area through radio station 2EA which broadcasts in 48 languages for 126 hours per week
  - the provincial centres of Newcastle and Wollongong in N.S.W. through 2EA translator stations.
- subsidies to public broadcasting stations in Adelaide, Brisbane, Canberra, Hobart, Perth, Albury, Armidale, Bathurst, Lismore and Newcastle for the production and presentation of ethnic radio programs.
- a subsidy to Whyalla Ethnic Broadcasters Inc. for the production of ethnic radio programs for presentation on commercial radio station 5AU Whyalla.
- *a multicultural television service* on VHF Channel 0 and UHF Channel 28 to the Sydney and Melbourne metropolitan areas and Geelong.

Broadcasting services

The Australian Broadcasting Tribunal

The Australian Broadcasting Tribunal came into being on 1 January 1977 and is responsible for certain of the functions previously performed by the Australian Broadcasting Control Board (abolished 31 December 1976), including the licensing and supervising of the operations (other than technical aspects) of all stations except national stations. The Tribunal is empowered to grant, renew, suspend or revoke licences, to determine program and advertising standards applicable to licensed stations, and to determine the hours of transmission of licensed stations. In particular, the Tribunal is required to conduct public inquiries into the granting of licences following the invitation of applications by the Minister. The Tribunal may also conduct enquiries into the renewal of licences, the setting of standards of broadcasting practices, alleged breaches of licence conditions and such other matters as the Minister may direct.

The National Broadcasting Service

In sound broadcasting the programs of the National Broadcasting Service are provided by the Australian Broadcasting Corporation through transmitters operated by Telecom Australia on behalf of the ABC and the Department of Communications.

Technical facilities. At 30 June 1984 the National Broadcasting Service comprised 144 transmitting stations, of which ninety-five were medium frequency, thirty-three frequency modulation and sixteen high frequency (five internal and eleven Radio Australia).

The medium-frequency transmitters operate in the broadcast band 526.5 to 1,606.5 kilohertz. The high-frequency stations, using frequencies within the band of three to thirty megahertz, provide services to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programs provided by country stations are relayed from the capital cities using high-quality program transmission lines. A number of program channels are utilised to link national broadcasting stations in the capital cities of Australia. When necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1984 eighty-three of the ABC's medium-frequency stations were situated outside the six State capital cities.

Program facilities. The programs of the Australian Broadcasting Corporation cover a wide range of activities. The proportions of broadcasting time allocated on Radio 1 stations to the various types of program during 1983–84 were as follows: entertainment 51.2 per cent; news 8.3 per cent; sporting 13.4

per cent; spoken word 14.4 per cent; parliament 10.2 per cent; religious 1.2 per cent; rural 0.7 per cent; and presentation 0.5 per cent. By contrast, the ABC's Radio 2 station's programming was: classical music 53.0 per cent; light music 0.4 per cent; entertainment 3.4 per cent; drama and features 6.0 per cent; education 5.6 per cent; spoken word 14.1 per cent; religious 3.6 per cent; news 8.4 per cent; rural 3.6 per cent; and presentation 1.5 per cent. Radio 3 (regional) stations feature a higher proportion of news and rural programs. Further particulars of the operations of the Australian Broadcasting Corporation in respect of music, drama and features, youth education, talks, rural broadcasts, news, and other activities are shown in the Annual Report of the ABC.

Overseas Broadcasting Service

There are six high-frequency stations at Shepparton, two at Lyndhurst, Victoria and three at Carnarvon, Western Australia which provide the overseas service known as Radio Australia. As in the case of the National Broadcasting Service, these stations are maintained and operated by Telecom Australia, and their programs are arranged by Radio Australia. The programs, which, as well as entertainment, give news and information about Australia presented objectively, are directed to most parts of the world but with special emphasis on Asia and the Pacific. They include sixty-seven news bulletins a day. The overseas audience has been quite substantial in recent years, as evidenced by a large number of letters from listeners abroad (208,095 in 1982–83 and 181,708 in 1983–84), Radio Australia broadcasts in nine languages—English, Indonesian, Japanese, Neo-Melanesian, Thai, French, Standard Chinese, Cantonese and Vietnamese.

BROADCASTING STATIONS: 30 JUNE 1984

Type of station	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
National—									
Medium frequency	21	6	21	10	23	6	6	2	95
High frequency	–	2	2	–	1	–	–	–	5
Frequency modulation	7	7	6	3	6	2	1	1	33
Overseas—									
Short wave (Radio Australia)	–	8	–	–	3	–	–	–	11
Commercial—									
Medium frequency	43	24	29	10	17	8	2	2	135
Frequency modulation	2	2	1	1	1	–	–	–	7
Public broadcasting—									
Medium frequency	2	2	1	1	1	–	–	1	(*a*)8
Frequency modulation	8	4	3	2	2	2	2	–	23

(*a*) Includes broadcasting stations 2EA and 3EA operated by the Special Broadcasting Service.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Corporation through transmitters operated by Telecom Australia on behalf of the ABC and the Department of Communications. The first national station (ABN Sydney) commenced regular transmission on 5 November 1956. At 30 June 1984, 276 stations were operating—84 transmitters and 192 translator stations.

The television programs provided by the Australian Broadcasting Corporation cover a wide range of activities. The proportions of television time allocated among the ABC's various departments at 30 June 1984 were as follows: drama 19.62 per cent; public interest 13.73 per cent; sporting 13.11 per cent; news 5.99 per cent; variety and acts 4.64 per cent; education 26.52 per cent; musical performance 1.51 per cent; religious 1.03 per cent; special arts and aesthetics 7.52 per cent; and presentation 6.12 per cent. The average weekly transmission time for the 276 national television transmitters was ninety-five hours during the year ended 30 June 1984.

During the year ended 30 June 1984, three new national translator channels went into operation—one in New South Wales, one in Victoria, and one in Queensland.

Colour television

Colour television (PAL) was introduced in Australia late in 1974 and services became fully effective in March 1975.

TELEVISION AND TRANSLATOR STATIONS: 30 JUNE 1984

Type of station and location	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
National—									
Metropolitan television	1	1	1	1	1	1	1	1	8
Country television	14	9	32	5	15	2	3	–	80
Translator	38	13	53	15	41	15	12	1	188
Total, National	*53*	*23*	*86*	*21*	*57*	*18*	*16*	*2*	*276*
Commercial—									
Metropolitan television	3	3	3	3	2	1	1	1	17
Country television	11	6	8	3	4	1	–	–	33
Translator	36	12	24	5	7	17	–	1	102
Total, Commercial	*50*	*21*	*35*	*11*	*13*	*19*	*1*	*2*	*152*

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Monthly Summary of Statistics, Australia (two monthly) (1304.0)
Digest of Current Economic Statistics, Australia (two monthly) (1305.0)
Commonwealth Government Finance (5502.0)
Shipping and Air Cargo Commodity Statistics, Australia (quarterly) (9206.0)
Shipping and Cargo, Australia (quarterly) (9211.0)
Rail Transport, Australia (9213.0)
Registration of New Motor Vehicles, Australia (monthly) (9301.0)
Motor Vehicle Registrations, Australia (monthly) (9303.0)
Motor Vehicle Registrations, Australia (9304.0)
Road Traffic Accidents Involving Fatalities, Australia (monthly) (9401.0)
Road Traffic Accidents Involving Casualties (Admissions to hospitals), Australia (quarterly) (9405.0)

Other Publications

Information additional to that contained in ABS publications is available in the annual reports and other statements of the Department of Transport, the Department of Aviation, the various harbour boards and trusts, the several Government railway authorities, the Australian Postal Commission, the Australian Telecommunications Commission, and the Australian Broadcasting Corporation.

CHAPTER 21

PRIVATE FINANCE

This chapter contains statistics on the activities and structure of financial institutions including banks, building societies, insurance companies, finance companies, credit unions and co-operative societies together with descriptions of their operations and relevant controlling legislation.

MONEY

Currency

Australia has a decimal system of currency, the unit being the dollar which is divided into 100 cents. Australian notes are issued in the denominations of $2, $5, $10, $20, $50 and $100 and coins in the denominations of 1c, 2c, 5c, 10c, 20c, 50c and $1. The $1 note was replaced by the $1 coin in 1984.

For additional information on note issues and coinage, refer to the List of Special Articles, etc. towards the back of this Year Book.

AUSTRALIAN NOTES ON ISSUE

($ million)

	Last Wednesday in June					
	1979	*1980*	*1981*	*1982*	*1983*	*1984*
$1	64.7	68.6	74.1	78.8	81.4	58.2
$2	140.6	145.1	152.7	158.4	162.9	168.6
$5	135.5	143.2	153.9	165.6	174.1	183.1
$10	582.4	567.6	555.9	546.7	531.5	512.9
$20	1,756.4	1,903.9	2,060.0	2,169.8	2,195.8	2,235.6
$50	1,427.7	1,757.8	2,190.7	2,718.2	3,216.4	3,450.4
$100	—	—	—	—	—	595.6
Total	**4,107.4**	**4,586.1**	**5,187.3**	**5,837.5**	**6,362.2**	**7,204.5**
Held by banks	*451.1*	*500.9*	*578.1*	*677.4*	*712.6*	*786.7*
Held by public	*3,656.3*	*4,085.2*	*4,609.2*	*5,160.1*	*5,649.6*	*6,417.8*

AUSTRALIAN DECIMAL COIN: NET ISSUES BY RESERVE BANK

($ million)

	Year ended, June					
	1979	*1980*	*1981*	*1982*	*1983*	*1984*
1c	1.2	1.3	1.5	1.4	1.2	1.0
2c	1.9	2.4	2.9	2.7	1.7	1.4
5c	3.4	4.4	5.1	5.0	3.4	3.5
10c	3.7	4.9	5.8	6.2	4.3	5.2
20c	8.2	11.8	14.8	12.8	9.0	6.9
50c	10.0	12.3	12.1	26.8	22.1	9.4
$1	—	—	—	—	—	107.2
Total	**28.4**	**37.0**	**42.1**	**54.9**	**41.7**	**134.6**

Volume of money

Statistics of the volume of money in the following table include notes and coins in the hands of the public, deposits of the public with trading banks (including the Reserve Bank) and deposits with all savings banks. Volume of money is a measure of specified financial assets held by the non-bank public.

The financial assets included in the volume of money in the table represent only part (albeit a major part) of the public's total holdings of liquid financial assets. An expanded view of the volume of money would include the public's holdings of such other claims as finance company debentures, deposits and shares of building societies, loans to authorised dealers in the short-term money market, government securities, etc.

VOLUME OF MONEY

(*Source:* Reserve Bank of Australia)

(**$ million**)

Average of weekly figures for June	*Notes and coins in the hands of public*	*Deposits of public with all trading banks*			*Deposits with all savings banks(c)*	*Total volume of money*
		Current(a)	*Fixed(a)*	*Certificates of deposit(b)*		
1979	3,963	9,183	10,449	529	19,654	43,777
1980	4,420	10,423	10,243	3,012	21,061	49,159
1981	4,977	11,650	13,767	1,966	23,028	55,387
1982	5,570	11,325	16,948	3,002	24,808	61,653
1983	6,078	11,803	18,676	3,248	29,568	69,373
1984	6,983	12,663	19,289	3,850	34,051	76,836

(*a*) Excludes deposits of the Commonwealth and State Governments and inter-bank deposits. (*b*) Excludes holdings of the Commonwealth and State Governments and banks. (*c*) Interpolated 'weekly average' based on end-of-month figures.

FINANCIAL LEGISLATION

Commonwealth legislation for economic management

With Federation in 1901 the new Commonwealth Parliament was given power under Section 51 of the Commonwealth Constitution to legislate with respect to 'Banking, other than State Banking, also State Banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'. In 1911 the Commonwealth entered the field of banking with the establishment of the Commonwealth Bank of Australia, which conducted both trading bank and savings bank operations.

From 1911 to 1945 the functions of central banking became more and more the responsibility of the Commonwealth Bank and in 1945 the Commonwealth Parliament directed it to act as a central bank. In the ensuing period of economic growth and financial development, the need for effective regulatory control of finance through banks became increasingly recognised. During 1959 the Commonwealth Parliament enacted the following legislation:

(*a*) The *Banking Act 1959* which applies to all banks operating in Australia, including the external territories of the Commonwealth, except State banks trading in their own State. The objects of the Act are:
  - (i) to provide a legal framework uniform throughout Australia for regulating the banking system;
  - (ii) to safeguard depositors of the banks from loss;
  - (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank;
  - (iv) to control the volume of credit in circulation and bank interest rates; and
  - (v) to provide machinery for the control of foreign exchange.

(*b*) The *Reserve Bank Act 1959* which provides for the constitution and management of the Reserve Bank of Australia, the administration of the *Banking Act 1959* and the management of the Australian note issue.

(*c*) The *Commonwealth Banks Act 1959* which provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Bank of Australia, Commonwealth Savings Bank of Australia, and the Commonwealth Development Bank of Australia.

Information on more specific aspects of the growth and control of the banking industry is contained in earlier issues of the Year Book (Nos. 31, 37, 45, 46 and 61).

More recently, as a result of the further development of the financial market and the increasing significance in the market of the non-bank financial institutions such as finance companies, building societies and money market dealers, the *Financial Corporations Act 1974* was introduced. The object of this Act is to assist the Government to achieve effective management of the Australian economy by providing a means for the examination and regulation of the activities of non-bank financial institutions having regard to economic stability, the maintenance of full employment, the efficient allocation of productive resources, the ensuring of adequate levels of finance for housing and the economic prosperity and welfare of the people of Australia. Details of the operation and application of the Act are given in Year Book No. 62, page 541.

Other Commonwealth legislation directly affecting financial institutions

Insurance. Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to 'insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned'. Commonwealth legislation includes the *Marine Insurance Act 1909* defining the limits of marine insurance and regulating the terms of contracts, etc.; the *Life Insurance Act 1945* generally regulating life insurance business in Australia; and the *Insurance Act 1973* generally regulating general (non-life) insurance business in Australia. The *Marine Insurance Act 1909* has limited application.

Life Insurance Act 1945. The objects of this Act are:

(*a*) to replace all State legislation on the subject of life insurance except that relating to the life insurance operations of State government insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia;
(*b*) to appoint a Life Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; and
(*c*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act came into operation on 20 June 1946. The Life Insurance Commissioner issues an annual report which contains detailed information on the operations of life insurance companies.

Insurance Act 1973. The objects of this Act are:

(*a*) to appoint an Insurance Commissioner to exercise active supervision of the activities of companies conducting general (non-life) insurance business, apart from State government insurance whether or not extending beyond the limits of the State concerned and other organisations specified in the Act, with a view to securing the greatest possible protection for policy holders; and
(*b*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

The Act came into operation on 19 June 1973. The Insurance Commissioner issues an annual report which contains detailed information on the operations of insurance companies.

State legislation

In each State there exists legislation designed to regulate the activities and monitor the solvency position of particular types of financial institutions which operate on a co-operative basis and lend predominantly to members or consumers. In general, they form the groups covered later in this chapter under the headings of Permanent Building Societies, Co-operative Housing Societies and Credit Unions.

In some States there is also legislation for the incorporation of State government bodies which operate as banks or insurance offices. Though the regulations in Commonwealth legislation do not directly apply to these bodies, details of their operations have been included in the relevant parts of this chapter because they have agreed to supply information consistent with regulatory reports on a voluntary basis.

BANKS

Reserve Bank of Australia

The Reserve Bank of Australia preserved and continued in existence the original corporate body known as the Commonwealth Bank of Australia under the new name Reserve Bank of Australia.

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act 1959*, which states:

> 'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act 1959*, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to:
> (*a*) the stability of the currency of Australia;
> (*b*) the maintenance of full employment in Australia; and
> (*c*) the economic prosperity and welfare of the people of Australia'.

Management

The policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Central Banking Business

Under the *Commonwealth Bank Act 1911* and the war-time powers conferred by the National Security Regulations, the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III of the *Commonwealth Bank Act 1945* formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, these powers being carried through into the present Act constituting the Reserve Bank.

Note Issue Department

The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act 1959*. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes.

Rural Credits Department

The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act 1959*. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the Bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance is not to exceed one year.

RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS
($ million)

LIABILITIES

				Deposits of trading banks				
30 June—	*Capital and reserve funds*	*Special reserve— IMF special drawing rights*	*Australian notes on issue*	*Statutory reserve deposit accounts*	*Other*	*Deposits of savings banks*	*All other liabilities*	*Total*
1979	1,953.5	321.3	4,113.3	1,115.5	21.0	815.7	1,906.2	10,246.5
1980	4,061.8	389.6	4,549.3	1,376.1	9.6	553.3	1,067.5	12,007.1
1981	3,160.8	388.1	5,094.1	1,846.1	9.0	128.8	1,252.9	11,879.8
1982	2,553.2	352.3	5,837.5	2,118.4	23.0	195.3	1,667.3	12,746.9
1983	4,392.3	351.7	6,413.6	2,237.0	6.2	1.9	2,120.5	15,523.2
1984	4,265.5	304.5	7,236.8	2,409.1	12.6	1.3	2,658.3	16,888.2

ASSETS

30 June—	*Gold and foreign exchange (a)*	*Australian Government securities (b)*	*Loans, advances, bills discounted*	*Bank premises (c)*	*All other assets*	*Total*
1979	3,706.8	5,173.2	613.6	89.9	663.0	10,246.5
1980	5,504.3	5,197.6	608.3	112.1	584.8	12,007.1
1981	5,454.4	4,728.1	837.3	149.2	710.8	11,879.8
1982	6,518.5	4,771.2	573.0	160.3	723.9	12,746.9
1983	10,751.5	3,471.8	417.5	165.2	717.2	15,523.2
1984	12,261.1	2,871.5	748.8	169.9	836.9	16,888.2

(*a*) Includes currency at short call and International Monetary Fund drawing rights. (*b*) Includes Treasury bills and Treasury notes. (*c*) At cost, less amounts written off.

Trading banks

Commercial banking in Australia is conducted by eleven trading banks. Three large private trading banks, together with the Commonwealth Bank of Australia, are generally referred to as the major trading banks. These banks provide widespread banking facilities throughout Australia. The remaining seven banks comprise one small local bank, two overseas banks which have been represented in Australia for many years, three State-owned banks operating only within their respective States and one private bank.

The major trading banks are as follows: Commonwealth Bank of Australia; Australia and New Zealand Banking Group; Westpac Banking Corporation; and the National Australia Bank Limited.

The other trading banks are: Bank of Queensland Ltd; Bank of New Zealand; Banque Nationale de Paris; State Bank of New South Wales (previously The Rural Bank of New South Wales); State Bank of South Australia; The Rural and Industries Bank of Western Australia (General Banking Department); and the Australian Bank Ltd.

Liabilities and assets

Balance sheet information contained in the following table does not relate to uniform accounting periods but rather to the balance dates of banks within the years shown.

AUSTRALIAN TRADING BANKS(*a*): LIABILITIES AND ASSETS(*b*)

($ million)

LIABILITIES

	Paid-up capital	*Reserve funds (used in business of banks)(c)*	*Final dividend proposed*	*Balance of profit and loss account*	*Total share-holders' funds(c)*	*Balances due to other* banks	*Deposits, bills payable and other* liabilities(*d*)	*Total*
1978	594.6	796.7	42.7	104.1	1,538.0	2,356.2	28,697.7	32,591.9
1979	692.9	1,203.5	55.6	145.6	2,097.6	2,914.0	33,511.1	38,522.7
1980	769.6	1,450.3	69.8	201.5	2,491.2	3,488.6	38,593.4	44,573.2
1981	859.3	1,719.1	89.6	304.3	2,972.4	4,217.6	45,661.5	52,851.5
1982	1,146.2	1,927.9	108.2	367.8	3,550.1	6,641.7	56,131.1	66,322.9
1983 . . .	1,292.4	2,254.6	116.9	297.3	3,961.3	7,695.1	63,319.5	74,975.9

ASSETS

			Australian public securities					
			Australian Government					
	Coin, bullion, notes and cash at Reserve Bank	*Money at short call overseas*	*Treasury bills and notes*	*Other securities*	*Local and semi-government securities*	*Other public securities*	*Other securities*	*Loans to authorised dealers in short-term money market*
1978	357.6	144.3	192.3	3,874.5	143.6	440.9	698.5	693.2
1979	368.7	162.6	154.5	4,156.5	183.9	419.5	892.8	580.0
1980	523.9	270.0	284.3	4,270.6	315.3	277.1	1,227.6	624.0
1981	576.9	169.8	693.2	4,597.6	329.4	222.5	1,565.7	454.6
1982	616.1	399.3	817.6	5,440.6	324.5	94.8	2,876.2	77.2
1983 . . .	472.9	465.4	500.8	5,603.8	331.7	317.8	3,270.6	164.9

	Statutory reserve deposit account with Reserve Bank	*Cheques and bills of, and balances with and due from other banks*	*Loans, advances and bills discounted*	*Bank premises, furniture and sites*	*Bills receivable and remittances in transit*	*All other assets*	*Total*
1978	666.6	1,534.9	18,768.2	504.2	2,173.7	2,399.3	32,591.9
1979	1102.5	2,424.2	21,509.3	554.3	2,414.0	3,599.8	38,522.7
1980	1,373.6	2,771.9	24,705.7	595.8	1,841.2	5,492.2	44,573.2
1981	1,826.0	3,190.4	29,376.9	700.2	2,077.8	7,070.6	52,851.5
1982	2,096.3	4,564.8	35,826.5	816.8	2,281.0	10,091.3	63,322.9
1983 . . .	2,212.4	5,383.1	39,342.8	1,106.4	2,185.7	13,617.7	74,975.9

(*a*) Excludes the overseas banks but includes the deposits and assets held against the deposits of the Savings Bank Division of the Rural and Industries Bank of Western Australia. (*b*) Relates to liabilities and assets both inside and outside Australia. (*c*) Includes inner reserves from 1979. (*d*) Includes inner reserves to 1978.

Figures shown in the table below are the average of liabilities and assets within Australia (including external territories) of banks on weekly balance days (Wednesdays) during the period concerned.

ALL TRADING BANKS: AVERAGE LIABILITIES AND ASSETS WITHIN AUSTRALIA

($ million)

LIABILITIES(*a*)(*b*)

	Deposits repayable in Australia						
		Current					
June	*Fixed*	*Bearing interest*	*Not bearing interest*	*Total*	*Balances due to other banks*	*Bills payable and all other liabilities to the public*	*Total*
1979	12,577.3	1,159.8	8,441.8	22,178.9	900.4	4,347.9	27,427.1
1980	14,755.5	1,247.7	9,639.9	25,643.2	790.0	5,555.3	31,988.5
1981	17,187.8	1,218.4	10,899.7	29,305.9	827.2	7,302.9	37,436.0
1982	21,613.8	1,260.7	10,628.4	33,503.0	1,140.2	11,193.9	45,837.0
1983	23,643.8	1,702.0	10,698.4	36,044.3	1,350.3	14,871.4	52,266.0
1984 . . .	24,924.9	2,134.9	11,364.0	38,423.8	1,996.9	19,100.5	59,521.1

ASSETS(*b*)

		Australian Government securities							
June	*Coin, bullion, notes and cash at Reserve Bank*	*Treasury bills and notes*	*Other securities*	*Local and semi-government securities*	*Loans to authorised dealers in short-term money market*	*Statutory reserve deposit account with Reserve Bank*	*Loans, advances and bills discounted*	*All other assets*	*Total*
1979	435.3	204.4	3,951.2	71.8	265.3	1,125.5	17,653.3	5,443.4	29,150.2
1980	485.6	182.8	4,118.1	205.1	384.3	1,385.6	20,385.7	6,928.5	34,075.7
1981	550.4	840.0	4,416.8	219.8	264.7	1,852.6	22,998.4	8,708.4	39,851.1
1982	639.0	502.1	4,984.5	239.8	336.3	2,113.1	26,213.3	13,110.7	48,139.0
1983 . . .	620.4	537.6	5,395.1	123.4	193.0	2,238.2	28,686.7	16,858.4	54,652.6
1984 . . .	677.9	357.9	6,041.0	96.0	320.0	2,409.2	31,750.7	20,973.8	62,626.5

(*a*) Excludes shareholders' funds. (*b*) Excludes inter-branch accounts and contingencies.

Major trading banks: classification of advances and deposits

In the classification of advances and deposits, borrowers and lenders are classified into two main groups:

Residents—comprising all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia; and

Non-residents—comprising all other persons and institutions, including companies incorporated abroad, which, although represented, do not carry on business in Australia.

Residents are further classified into:

Businesses—partnerships, companies and other institutions engaged in business in Australia; individuals actively engaged in business or a profession on their own behalf; and mutual, co-operative and benefit societies which distribute their profits to members by way of dividends, rebates of charges for goods and services, or increased benefits.

Public authorities—local and semi-government authorities including separately constituted government business undertakings, but not the Commonwealth and State Governments.

Persons—individuals other than those carrying on a business or profession.

Non-profit organisations—organisations which are not operated for the purpose of making a profit or gain to individual members, but for the purposes of the organisations or for the benefit of the community in general.

MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES AND DEPOSITS WITHIN AUSTRALIA

($ million)

	Advances				*Deposits*			
	At second Wednesday of:				*At second Wednesday of:*			
	July 1982	*January 1983*	*July 1983*	*January 1984*	*July 1982*	*January 1983*	*July 1983*	*January 1984*
Residents—								
Businesses								
Agriculture, grazing and dairying	2,722.0	2,817.1	3,118.6	3,171.5	1,522.8	1,720.1	1,330.8	1,757.5
Manufacturing	2,496.4	2,402.4	2,609.6	2,335.0	627.2	760.5	725.9	800.4
Transport, storage and communication	400.8	407.8	415.5	471.9	247.0	241.7	209.0	225.6
Finance	1,014.1	1,043.4	1,151.0	1,124.2	1,559.6	2,115.0	2,097.3	2,071.7
Commerce	2,450.6	2,198.3	2,446.9	2,274.8	995.7	1,199.9	1,015.7	1,287.4
Building and construction	571.5	561.5	620.0	661.2	515.4	600.4	509.4	569.7
Other businesses	2,929.8	3,027.0	3,064.7	3,066.6	2,828.1	2,860.9	2,859.9	2,900.6
Unclassified	621.3	447.0	714.1	757.3	902.2	674.1	1,182.9	1,378.6
Total business	*13,206.5*	*12,904.5*	*14,140.4*	*13,862.5*	*9,198.0*	*10,172.7*	*9,930.9*	*10,991.5*
of which—								
Companies	7,785.5	7,114.0	8,005.4	7,067.0	4,389.3	4,888.3	4,907.2	5,318.4
Other	5,421.0	5,790.5	6,135.1	6,795.5	4,808.8	5,284.3	5,023.7	5,673.1
Public authorities	265.9	241.9	195.7	356.9	1,860.1	2,007.5	1,865.1	1,772.3
Persons	8,967.3	9,456.1	9,882.0	10,699.9	13,458.7	14,314.9	14,467.3	14,764.8
Non-profit organisations	176.1	206.2	211.3	247.0	1,064.3	1,057.4	1,180.5	1,250.5
Total residents	*22,615.8*	*22,808.6*	*24,429.4*	*25,166.2*	*25,581.1*	*27,552.5*	*27,443.7*	*28,779.1*
Total non-residents	*25.0*	*36.4*	*41.2*	*24.1*	*483.0*	*566.2*	*601.6*	*587.3*
Total	**22,640.8**	**22,845.0**	**24,470.6**	**25,190.3**	**26,064.1**	**28,118.7**	**28,045.3**	**29,366.4**

Interest rates

At 30 June 1984, rates of interest were:

	(Per cent per annum)
Fixed deposits (Less than $50,000)	
30 days to less than 3 months	10.00—12.25
3 months to less than 6 months	10.10—12.50
6 months to less than 24 months	10.50—12.50
24 months and over	10.75—12.50
Overdrafts	
Less than $100,000	12.00—14.50
$100,000 and over	14.25—16.00

Branches and agencies

At 30 June 1984 the major trading banks operated 4,635 branches, and the other trading banks 397 branches. Of the total 5,032 branches, 2,716 were located in metropolitan areas. Trading bank facilities were also available at 1,087 agencies throughout Australia.

Debits to customers' accounts

TRADING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS(*a*)

($ million)

June	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1979	8,147.8	7,050.1	1,712.4	924.5	1,370.3	243.8	43.1	186.9	19,678.9
1980	10,516.4	7,854.9	2,108.4	1,021.0	1,498.7	268.0	76.1	240.0	23,583.6
1981	12,319.1	8,871.0	2,522.5	1,169.6	1,821.4	280.6	78.4	346.8	27,409.3
1982	17,918.1	13,027.4	3,448.5	1,700.0	2,501.2	334.4	96.2	567.7	39,593.4
1983	17,788.4	13,679.3	3,926.4	1,727.2	2,592.5	332.0	95.1	834.1	40,974.9
1984	26,970.8	19,075.0	5,389.3	2,123.6	3,448.9	402.1	166.9	1,223.3	58,800.0

(*a*) Covers all trading banks and in addition the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank. Excludes debits to the Commonwealth and State Government accounts in capital cities.

Savings banks

Prior to 1956, savings bank operations were conducted by the Commonwealth Savings Bank, two trustee savings banks in Tasmania, and State-owned banks in Victoria, South Australia and Western Australia. In January 1956 private savings banks were established as subsidiary companies by two of the private trading banks. By mid-1962 all the major private trading banks had established savings bank subsidiary companies. In May 1972 the Bank of New Zealand Savings Bank Limited was granted an authority to carry on savings bank business in Australia.

All savings banks, including trustee savings banks but not State savings banks, are subject to the *Banking Act 1959*.

Liabilities and assets

Balance sheet information contained in the following table does not relate to uniform accounting periods but rather to the balance dates of banks falling within the years shown.

SAVINGS BANKS (*a*): LIABILITIES AND ASSETS (*b*)

($ million)

LIABILITIES

	Paid-up capital	*Reserve funds (used in the business of the bank) (c)*	*Balance of profit and loss account*	*Total share-holders' funds (c)*	*Deposi-tors' balances*	*Balances due to other banks*	*Bills payable and all other liabilities (d)*	*Total*
1978 . . .	60.0	370.8	22.6	453.4	18,078.7	86.1	751.4	19,369.6
1979 . . .	85.0	639.2	32.9	757.1	19,811.6	105.1	622.9	21,296.7
1980 . . .	92.0	737.2	41.8	871.1	21,276.8	110.4	732.4	22,990.7
1981 . . .	92.0	858.2	51.1	1,001.4	23,070.2	139.7	876.3	25,087.5
1982 . . .	90.5	916.5	66.2	1,073.2	24,919.1	303.2	1,329.6	27,625.1
1983 . . .	140.5	928.5	48.7	1,117.6	30,609.9	570.5	1,471.8	33,769.8

ASSETS

			Australian public securities			
	Coin, bullion, notes and deposits with Reserve Bank	*Deposits in Australia with trading banks*	*Commonwealth and State Governments*		*Local and semi-government securities*	*Other securities*
			Treasury bills and notes	*Other securities*		
1978	1,146.9	218.4	97.1	2,514.5	4,899.8	54.5
1979	850.5	258.7	594.6	2,469.0	5,303.6	53.4
1980	616.6	252.2	1,070.6	2,112.9	5,662.8	56.8
1981	267.5	304.2	1,553.1	2,170.1	6,028.5	65.9
1982	233.9	323.0	1,711.8	2,103.3	5,930.7	105.2
1983	200.4	437.9	1,142.0	4,184.0	6,861.9	245.6

	Loans to authorised dealers in short-term money market	*Cheques and bills of, and balances with and due from other banks (e)*	*Loans advances and bills discounted*	*Bank premises, furniture and sites*	*Bills receivable and re-mittances in transit*	*All other assets*	*Total*
1978	118.0	351.4	9,371.4	276.6	71.2	249.6	19,369.6
1979	137.5	372.8	10,614.1	317.8	47.5	277.4	21,296.7
1980	178.9	406.8	11,930.8	365.9	70.4	265.9	22,990.7
1981	133.4	381.1	13,384.7	409.8	62.5	326.7	25,087.5
1982	116.2	502.4	15,199.5	449.1	383.5	566.5	27,625.1
1983	351.1	836.0	18,014.0	504.1	531.6	461.2	33,769.8

(*a*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*b*) This table relates to liabilities and assets both inside and outside Australia. (*c*) Includes inner reserves from 1979. (*d*) Includes inner reserves to 1978. (*e*) Includes deposits with and loans to specified lenders other than trading banks.

Branches and agencies

At 30 June 1984 the savings banks operated 5,592 branches and 10,533 agencies, of which 3,115 branches and 4,897 agencies were in metropolitan areas.

Development banks

Commonwealth Development Bank of Australia

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act 1959* and commenced operations on 14 January 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the former Commonwealth Bank of Australia. The functions of the Development Bank are to provide finance for the purpose of primary production (which includes fishing, forestry and all forms of rural activity) and for the establishment or development of small business undertakings (i.e. with shareholders'/proprietors' funds not exceeding $5 million) in cases where such finance is not otherwise available on reasonable and suitable terms and conditions.

Two types of facility are provided—loans over medium to long terms and equipment finance over short terms. Loans to primary industry may be for all types of farm development, property purchase and restructuring of private mortgage debt. Loans to small businesses may be for establishment of new enterprises or for development of existing businesses in all sectors including manufacturing, retail and wholesale trade, transport, tourism, professions, entertainment and service industries. Equipment finance is provided for the acquisition of plant and vehicles for both primary industry and business undertakings. The Bank has widened its policy to lend for working capital and to re-finance loans from non-bank sources.

The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation and its policy is determined by the Board of that Corporation.

Australian Resources Development Bank Limited

The Australian Resources Development Bank Limited was established in 1967 with equity capital of $3 million subscribed by the major trading banks. It was given the status of a bank under the *Banking Act 1959* and opened for business on 29 March 1968. The main object of the Australian Resources Development Bank is to assist Australian enterprises to participate more fully in the development of Australia's natural resources. It provides finance to enterprises engaged in major developmental projects by direct loans, investing in equity capital or by refinancing loans made by trading banks acting individually or as a group. The Australian Resources Development Bank obtains funds by accepting deposits and by borrowing on the Australian and overseas capital markets.

The Primary Industry Bank of Australia Limited

The Primary Industry Bank of Australia Limited commenced operations on 22 September 1978 under the authority of the *Primary Industry Bank Act 1977*. The Bank has also been brought within the scope of the *Banking Act 1959* including those provisions relating to the protection of depositors, advances policy, control of interest rates, furnishing of statistics, and alterations in the structure and ownership of the Bank.

The main objective of the Bank is to facilitate the provision of loans to primary producers for longer terms than are otherwise generally available. The Bank's role is restricted to refinancing loans made by banks and other financial institutions with terms of eight years or more but not exceeding thirty years.

The equity capital of the Bank is $5,625,000 consisting of six shares. Five shares are held by the Commonwealth Government and the major trading banks while the sixth share is held equally by the four State banks.

REGISTERED BUILDING SOCIETIES

Permanent building societies

A permanent building society is defined as an organisation that: (a) is registered under relevant State or Territory legislation; (b) has not by its rules any fixed date or certain event or result when it is to terminate; (c) is authorised to accept money on deposit; and (d) operates on a co-operative basis by borrowing predominantly from its members and providing finance to its members principally in the form of housing loans.

In 1976 a statistical collection was introduced covering the financial accounts of permanent building societies in all States and Territories of Australia. The statistics below summarise information collected from the 88 permanent building societies balancing in the 1982–83 financial year. More detailed descriptions and dissections of these statistics may be found in the annual publication *Permanent Building Societies: Assets, Liabilities, Income and Expenditure, Australia* (5632.0).

Information relating to the housing finance operations of permanent building societies is provided on pages 492 and in the monthly publication *Housing Finance for Owner Occupation, Australia* (5609.0).

Summary statistics on the assets and selected liabilities of permanent building societies registered under the *Financial Corporations Act 1974* are given on pages 484-5.

PERMANENT BUILDING SOCIETIES:
LIABILITIES AND ASSETS(*a*)
($ million)

Liabilities	*1982–83*	*Assets*	*1982–83*
Share capital and reserves:		Amount owing on loans	10,696.6
Non-withdrawable shares	35.5		
Withdrawable shares	10,078.8	Cash on hand	29.1
Reserves—		Deposits with—	
Statutory	165.2	Banks	813.2
Other(*b*)	271.1	Other	288.0
Deposits	4,439.7	Bills, bonds and other securities	2,982.8
Loans	277.9	Accounts receivable	60.3
Accounts payable	53.7	Physical assets	487.1
Other liabilities	64.7	Other assets	29.4
Total liabilities	**15,386.6**	**Total assets**	**15,386.6**

(*a*) At the balance dates of societies within the financial year shown. (*b*) Includes accumulated surpluses and deficits.

PERMANENT BUILDING SOCIETIES:
INCOME AND EXPENDITURE
($ million)

Expenditure	*1982–83*	*Income*	*1982–83*
Interest on:		Interest from:	
Shares	1,081.0	Loans	1,579.2
Deposits	531.3	Deposits	163.4
Loans	24.6		
Wages and salaries	125.5	Income from holdings of securities	360.1
Management fees(*a*)	47.8		
Administrative expenses(*b*)	120.3	Management fees	20.8
Insurance premiums paid	3.1		
Other expenditure	111.8	Other income	29.6
Total expenditure	**2,045.5**	**Total income**	**2,153.0**

(*a*) Represents payments made by societies to separate management companies. (*b*) Includes Permanent Building Society Association costs, advertising, bank charges and other administrative expenses.

Co-operative housing societies

Prior to the publication of figures for 1982-83, Co-operative Housing Societies were known as terminating building societies. The change came about as a result of amendments to the NSW legislation governing terminating building societies which require societies with common boards of directors, a common registered office and the same institutional lender to amalgamate to form a single society whose rules no longer require it to terminate (although this requirement to termination is still relevant in all other States and Territories). A co-operative housing society is therefore defined as an organisation that: (a) is registered under the relevant State or Territory legislation; (b) is not authorised to accept money on deposit; (c) is only allowed to raise money on loans; (d) only provides finance to its members in the form of housing loans; and (e) does not cause or permit applicants for loans to ballot for precedence or in any way make the granting of a loan dependent on any chance or lot. The statistics below summarise information collected from the 3,047 co-operative housing societies balancing within the 1982–83 financial year. More detailed descriptions and dissections of these statistics may be found in the annual publication *Co-operative Housing Societies: Assets, Liabilities, Income and Expenditure, Australia (5633.0).*

Information relating to the housing finance operations of societies is provided on page 492.

CO-OPERATIVE HOUSING SOCIETIES: LIABILITIES AND ASSETS(*a*)

($ million)

Liabilities	*1982–83*	*Assets*	*1982–83*
Share capital(*b*)	0.1	Amount owing on loans(*b*)	1,591.1
Accumulated funds(*c*)	26.0	Cash on hand and current accounts at banks	11.3
Loans from:		Deposits with:	
Banks	230.4	Banks	6.5
Commonwealth/State Home Builders' Fund(*d*)	942.7	Others	21.5
Others	425.0	Physical assets	0.2
Other liabilities	8.0	Other assets	1.6
Total liabilities	**1,632.2**	**Total assets**	**1,632.2**

(*a*) At the balance dates of societies within the financial year shown. (*b*) Borrowing members' subscriptions have been offset against 'Amount owing on loans'. (*c*) Includes accumulated surpluses and deficits. (*d*) Refers to loans made through the Commonwealth/State Housing Agreements.

CO-OPERATIVE HOUSING SOCIETIES: INCOME AND EXPENDITURE

($ million)

Expenditure	*1982–83*	*Income*	*1982–83*
Interest paid on borrowing members' subscriptions	2.7	Interest on:	
Interest on loans from:		Loans to members	140.2
Banks	35.3	Other	2.5
Other	101.3	Management fees	11.5
Salaries and secretarial fees	10.4		
Other expenditure	4.3	Other income	3.1
Total expenditure	**154.1**	**Total income**	**157.3**

CREDIT UNIONS

A credit union (or co-operative credit society) is defined as an organisation that: (a) is registered under relevant State or Territory legislation; and (b) operates on a co-operative basis by predominantly borrowing from and providing finance to its own members.

Credit union annual financial account statistics were first collected on a national basis from all registered credit unions for the year 1974–75 when there were 738 credit unions with a total of 909,547 members. The number of credit unions operating in 1982–83 was 549 with 1,824,286 members. Comprehensive financial account statistics are provided in the annual publication *Credit Unions: Assets, Liabilities, Income and Expenditure, Australia* (5618.0).

Statistics on the housing finance operations of credit unions are provided on page 492, while on pages 484-5 are summary statistics on the assets and selected liabilities of credit co-operatives registered under the *Financial Corporations Act 1974* which have assets in Australia exceeding $5 million.

CREDIT UNIONS: LIABILITIES AND ASSETS(*a*)

($ million)

Liabilities	*1982–83*	*Assets*	*1982–83*
Share capital and reserves:		Amount owing on loans(*c*)	2,664.6
Paid-up share capital	15.5	Cash on hand	16.5
Reserves—		Deposits with—	
Statutory	39.0	Banks	128.1
Other(*b*)	95.6	Credit Union Leagues or Associations	322.3
Deposits	3,391.8	Other	182.0
Loans	53.2	Bills, bonds and other securities	142.9
Accounts payable	18.1	Accounts receivable	18.9
Other liabilities	12.9	Physical assets	136.9
		Other assets	14.0
Total liabilities	**3,626.1**	**Total assets**	**3,626.1**

(*a*) At the balance dates of credit unions within the financial year shown. (*b*) Includes accumulated surpluses and deficits. (*c*) Net of unearned interest and allowance for doubtful debts.

CREDIT UNIONS: INCOME AND EXPENDITURE

($ million)

Expenditure	*1982–83*	*Income*	*1982–83*
Interest on:		Interest from:	
Deposits	340.8	Loans	434.2
Loans	4.5	Deposits	70.5
Wages and salaries	63.0		
Administrative expenses (*a*)	46.5	Income from holdings of securities	15.3
Insurance premiums paid	7.6	Management fees	2.9
Allowance for doubtful debts	7.9	Bad debts recovered	1.2
Other expenditure (*b*)	36.1	Other income	8.8
Total expenditure	**506.3**	**Total income**	**533.0**

(*a*) Includes Financial Institutions duty. (*b*) Includes bank accounts debit tax.

SHORT-TERM MONEY MARKET

Authorised money market corporations

For some years prior to 1959 leading stockbrokers were actively engaged in operations which formed the basis of a short-term money market in Australia. The stockbrokers' operations involved the acceptance of short-term funds which were secured against government securities. These operations were severely limited by the lack of suitable short-term securities and by liquidity constraints. In February 1959 the Central Bank established the Official Short-Term Money Market by making available 'lender of last resort' facilities to selected dealers.

There are nine authorised money market dealers. They are required by the Reserve Bank to: (a) accept loans overnight, at call or for fixed periods, in minimum amounts of $50,000 and invest these funds in Commonwealth Government and other approved securities; (b) at all times be willing traders in the buying and selling of approved securities; (c) have a minimum paid-up capital of $400,000 and adhere to a maximum limit on the ratio of loans to shareholders' funds; and (d) consult regularly with the Reserve Bank on all market matters and furnish detailed information about their portfolios, operations, interest rates, balance sheets and profit and loss accounts. Under the 'lender of last resort' arrangements, dealers may borrow from the Reserve Bank for a minimum of seven days and at a rate designed to discourage excessive recourse to the facility.

The following table contains details of selected liabilities and assets, and interest rates. Additional information on authorised dealers collected under the *Financial Corporations Act 1974* is provided on pages 484-5.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORISED DEALERS

(*Source:* Reserve Bank of Australia)

	Liabilities to clients			*Asset holdings (face value)*			*Interest rates on loans accepted during month*				*Weighted average interest rate on loans outstanding (c)*
							At call		*For fixed periods*		
Month	*All trading banks*	*Other clients*	*Total*	*C'wealth Govt securities (a)*	*Commercial bills (b)*	*Banks' certificates of deposit*	*Minimum*	*Maximum*	*Minimum*	*Maximum*	
	Average of weekly figures—($ million)						*Per cent per annum*				
June—											
1979 .	265	1,213	1,478	1,246	190	18	1.00	18.25	3.10	11.00	7.75
1980 .	384	1,114	1,498	1,274	229	58	1.00	18.80	5.50	13.00	10.34
1981 .	265	1,122	1,387	1,395	258	25	5.00	21.60	11.75	15.00	13.04
1982 .	336	1,038	1,374	1,047	265	85	1.00	26.10	4.00	19.25	14.88
1983 .	193	1,303	1,496	1,100	361	177	1.00	25.00	2.00	15.00	9.76
1984 .	320	1,289	1,609	1,181	449	231	1.00	17.46	4.00	13.75	11.42

(*a*) Within 5 years of maturity. (*b*) Accepted or endorsed by banks. (*c*) Weighted average of rates paid on all days of the four or five weeks ending on the last Wednesday of the month.

Money market corporations

There are also companies without Reserve Bank 'lender of last resort' facilities which operate in a similar manner to authorised dealers. These companies are recognised under the *Financial Corporations Act 1974* in the category of money market corporations. This category consists of registered corporations whose short-term borrowings are a substantial proportion of their total outstanding provision of finance, which is mainly in the form of loans to authorised dealers in the short-term money market and other liquidity placements, business loans and investments in Government, commercial and corporate paper.

The category of money market corporations also includes registered corporations providing short-term finance but which are themselves financed by related corporations with funds raised on a short-term basis, as well as corporations which borrow principally short-term and lend predominantly to related money market corporations.

Statistics on money market corporations registered under the *Financial Corporations Act 1974* are contained in the tables on pages 484-5.

FINANCE COMPANIES

Information presented on finance companies in Australia in the following tables has been compiled from returns collected under the *Census and Statistics Act* 1905. For the purpose of these statistics, a finance company is defined as an incorporated company which is, or a group of incorporated companies related under Section 7 of the *Companies Act 1981*, each of which is, mainly engaged in providing to the general public (businesses as well as persons in their private capacity) any of the following types of credit facilities: instalment credit for retail sales; personal loans; wholesale finance; factoring; other consumer and commercial loans; finance leasing of business plant and equipment and bills of exchange transactions. A company is mainly engaged in providing these types of credit facilities if 50 per cent or more of its assets consist of balances outstanding with respect to such facilities, or if 50 per cent or more of its income is derived from such facilities.

The statistics for the financial year relate to those finance companies which have balances outstanding net of unmatured income in the prescribed types of credit facilities of $5 million or more in total on an Australia-wide basis. The 1982–83 annual census of finance companies indicated that companies thus included accounted for 99.1 per cent of the total net balances outstanding on prescribed credit facilities of all finance companies.

Comprehensive information on the transactions and financial structure of finance companies is available in the monthly publication *Finance Companies, Australia* (5614.0) and the annual publication *Finance Companies: Assets, Liabilities, Income and Expenditure, Australia* (5616.0) respectively.

Although individual corporations in the *Financial Corporations Act 1974* categories of finance companies and general financiers may meet the above definition of a finance company, differences in definitions, scope and coverage generally mean that the statistics on pages 484-5 for those categories are not comparable with the statistics for finance companies shown below.

FINANCE COMPANIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(*a*)

($ million)

	1980–81	*1981–82*	*1982–83*
Assets—			
Balances outstanding on finance agreements(*b*)	17,489.3	20,573.1	22,862.4
Cash on hand and bank deposits	33.4	32.2	99.1
Loans to authorised money market dealers	12.5	19.4	11.7
Investments in shares and securities	318.4	354.0	452.6
Physical assets	182.1	208.6	227.8
Other assets	369.6	389.3	506.8
Total assets	**18,405.4**	**21,576.7**	**24,160.4**
Liabilities—			
Paid-up capital	1,145.3	1,305.7	1,348.0
Reserves	533.7	582.8	663.3
Unappropriated profits	385.0	551.3	645.3
Borrowed funds—			
Bank loans and overdrafts	315.5	419.6	411.6
Debentures	7,517.0	8,255.5	9,810.2
Secured and unsecured loans	6,827.7	8,696.1	9,231.1
Other liabilities	1,681.3	1,765.7	2,050.9
Total liabilities	**18,405.4**	**21,576.7**	**24,160.4**
Income for year—			
Interest from finance agreements	2,558.7	3,210.9	4,019.3
Other income	205.6	199.7	244.6
Total income	**2,764.2**	**3,410.6**	**4,263.9**
Expenditure for year—			
Interest on borrowed funds	1,621.4	2,160.8	2,760.3
Wages, salaries and allowances, directors fees and emoluments	263.0	288.5	340.9
Other expenditure	507.6	538.6	712.5
Total expenditure	**2,392.0**	**2,987.9**	**3,813.7**

(*a*) At the balance date of companies within the financial year shown. (*b*) Excludes unmatured income of $4,306.8m in 1980–81, $5,427.8m in 1981–82 and $6057.9m in 1982–83.

FINANCE COMPANIES: AMOUNT FINANCED AND BALANCES OUTSTANDING CLASSIFIED BY THE TYPE OF FINANCE AGREEMENT

($ million)

	1981–82	*1982–83*	*1983–84*
Amount financed during year—			
Instalment credit for retail sales and personal loans	2,732.9	2,586.1	2,981.6
Finance for housing	2,087.7	1,530.4	1,722.1
Wholesale finance	6,251.7	5,770.9	7,015.2
Factoring and other commercial loans	4,134.7	4,369.0	5,423.1
Leasing of business plant and equipment(*a*)	3,594.1	3,113.0	4,202.5
Bills of exchange(*b*)	2,093.3	2,606.3	4,308.8
Total amount financed on finance agreements(*c*)	**20,894.3**	**19,975.6**	**25,653.3**
Balances outstanding at 30 June (*d*)—			
Instalment credit for retail sales and personal loans	5,411.1	5,481.6	5,701.1
Finance for housing	4,844.3	4,526.6	4,394.4
Wholesale finance	1,495.4	1,256.4	1,316.6
Factoring and other commercial loans	5,482.9	6,038.4	6,506.3
Leasing of business plant and equipment(*e*)	9,622.1	9,799.7	10,333.0
Bills of exchange	134.1	179.8	300.9
Liquidity placements and loans to non-finance companies in group	588.1	864.8	776.0
Total balances outstanding on finance agreements	**27,578.0**	**28,147.2**	**29,328.4**

(*a*) Refers to the value of goods newly leased. (*b*) Refers to amounts paid for bills acquired. (*c*) Excludes amounts for liquidity placements and loans to non-finance companies in group. (*d*) Includes unmatured income. (*e*) Refers to the value of leasing agreements.

FINANCIAL CORPORATIONS STATISTICS

The statistics provided in the following tables have been compiled from monthly returns supplied to the Australian Bureau of Statistics by corporations registered under the *Financial Corporations Act* 1974 (FCA). A summary of the objects and content of the Financial Corporations Act is given in Year Book No. 62, page 541.

The *Financial Corporations (Statistics) Regulations* were amended on 25 May 1984, to enable the implementation of recommendations for the rationalisation of statistics of financial institutions, made by the Working Group on Financial Statistics, which comprised representatives of, the Australian Bureau of Statistics, Department of the Treasury and the Reserve Bank of Australia.

New statistical forms incorporating changes to data item definitions and descriptions, were introduced in June 1984. These changes affect all corporations registered under the *Financial Corporations Act 1974.* Due to these changes there now exists a general break in series, details of which can be obtained in the June 1984 issues of the monthly publications *Building Societies, Australia* (5637.0); *Authorised Dealers and Money Market Corporations, Australia* (5638.0); *Financial Companies Financial Corporations Act, Australia* (5639.0) and *Other Registered Corporations, Australia* (5640.0).

Descriptions of the categories *building societies, credit unions/co-operatives, authorised money market dealers* and *money market corporations* appear in the respective parts of this chapter. Descriptions of the other categories are as follows:

Pastoral finance companies—comprising corporations whose provision of finance is predominantly in the form of loans to rural producers largely associated with the provision of rural services.

Finance companies—comprising corporations not included in the categories *building societies, credit co-operatives, authorised money market dealers, money market corporations* or *pastoral finance companies* which rely substantially on borrowings in financial markets in Australia and/or from abroad and whose provision of finance is predominantly in the form of business and commercial lending, instalment credit to finance retail sales by others and/or other loans to individuals.

General financiers—comprising corporations which lend predominantly for business and commercial purposes, instalment credit to finance retail sales by others and/or other loans to individuals but which do not rely substantially on borrowings in financial markets in Australia and from abroad.

Intra group financiers—comprising corporations not elsewhere categorised which predominantly borrow within a corporation group and/or provide finance by lending within their corporation group or by investing in financial markets.

Other financial corporations—comprising registered corporations not included in any other specific category.

FINANCIAL CORPORATIONS, AUSTRALIA: SELECTED LIABILITIES AND ASSETS(*a*)

($ million)

SELECTED LIABILITIES AS AT 30 JUNE 1984

	Borrowings from—				
	Residents				
Category	*By acceptance of bills of exchange and promissory notes*	*Related corporations (b)*	*Banks*	*Other*	*Non-residents*
Building societies	4.7	15.9	146.9	16,530.7	12.2
Credit co-operatives	n.a.	n.a.	15.4	3,707.4	—
Authorised money market dealers	n.a.	7.4	966.7	952.7	8.0
Money market corporations	636.2	291.2	1,144.7	12,073.2	1,471.4
Pastoral finance companies	87.1	675.1	140.7	1,062.0	299.9
Finance companies	466.5	455.4	1,243.0	4,082.1	705.6
General financiers	131.1	434.7	381.9	894.4	361.4
Intra group financiers	—	758.7	195.2	1,342.1	460.3
Other financial corporations	—	—	1.9	327.0	—
Total	**1,325.6**	**2,638.4**	**4,236.4**	**40,971.6**	**3,318.8**

For footnotes *see* end of table.

ASSETS IN AUSTRALIA AT 30 JUNE 1984

Category	Cash and bank deposits	Loans to authorised dealers in the STMM and other placements and deposits(c)	Government and public authority securities	Bills of exchange and promissory notes purchased and held(d)	Other securities	Other assets arising from the provision of finance (e)	All other assets in Australia	Total assets in Australia	Assets overseas
Building societies . .	1,052.5	164.6	1,493.7	1,892.9	29.9	12,415.8	670.3	17,719.5	—
Credit co-operatives .	134.5	337.2	79.3	52.2	28.8	3,147.2	197.0	3,976.3	—
Authorised money market dealers . .	288.5	0.2	1,460.1	468.8	1.0	0.4	22.7	2,241.7	—
Money market corporations . . .	1,105.4	3,009.9	356.4	5,603.2	456.7	5,791.1	1,378.2	17,700.6	100.6
Pastoral finance companies	17.0	29.5	—	2.0	526.0	2,150.5	563.1	3,288.0	2.5
Finance companies . .	65.8	541.0	10.0	241.2	322.9	21,161.5	362.6	22,704.8	5.9
General financiers . .	61.4	169.9	2.9	147.2	94.2	2,499.2	335.0	3,310.6	0.8
Intra group financiers .	2.7	164.3	25.4	207.5	150.2	2,595.0	32.6	3,177.7	9.5
Other financial corporations . . .	22.1	131.3	12.6	98.5	8.8	52.2	14.0	339.5	—

(*a*) Excludes credit co-operatives, general financiers and intra group financiers with assets not exceeding $5 million. (*b*) Excludes related corporations in the same FCA category. (*c*) Includes short-term placements that are repayable at call or within 90 days; excludes funds placed with banks, and purchases of government securities and bills of exchange. (*d*) Excludes bills that have been drawn or accepted by reporting corporations. (*e*) Includes holdings of bills that have been drawn by reporting corporations and loans that have been re-financed by the sale of bills accepted by reporting corporations.

CASH MANAGEMENT TRUSTS

A monthly statistical collection was introduced in May 1983 to obtain information on the operations of cash management trusts. A cash management trust is a unit trust which is governed by a trust deed, is open to the public and generally confines its investments to financial securities available through the short term money market.

The following table summarises the financial operations of cash management trusts.

CASH MANAGEMENT TRUSTS

Quarter	Number of Trusts	Units in issue at end of period $ million	Weighted average net yield at end of period % per annum	Assets ($ million)					
				Cash and deposits with banks	All other deposits and loans	Bills of exchange purchased and held	Promisory Notes purchased and held	Other assets	Total assets
1982-83—									
March . .	16	2,163.0	13.48	568.8	617.1	833.2	171.1	31.5	2,221.7
June . . .	16	2,152.6	13.04	340.5	615.6	1 038.8	184.2	34.7	2,213.8
1983-84—									
September .	16	2,121.1	11.40	63.3	803.5	978.4	215.0	96.0	2,156.2
December .	16	1,801.6	9.82	119.3	557.8	922.4	209.8	41.5	1,850.8
March . .	15	1,525.2	11.21	133.4	412.5	786.7	184.2	43.0	1,559.9
June . . .	16	1,438.4	12.01	78.8	329.7	907.3	128.7	31.8	1,476.3

LIFE INSURANCE

Statistics in the following tables have been derived from the publications of the Life Insurance Commissioner and relate to the life insurance business of companies with head offices in Australia and the Australian business of companies with head offices overseas. Also included are the life business operations voluntarily reported by three State Government Insurance Offices.

Forty-eight life offices conducted life insurance business in Australia during 1983.

Information contained in the following three tables does not relate to uniform accounting periods but to the balance dates of organisations falling within the calendar year shown.

LIFE INSURANCE OFFICES: LIABILITIES AND ASSETS

($ million)

	1981	*1982*	*1983*
Liabilities—Australia and overseas—			
Total balances of revenue accounts at end of year	19,161.4	21,563.5	24,946.7
Reserves	222.4	269.4	279.0
Total	19,383.8	21,832.9	25,225.7
Other liabilities—			
Bank overdraft	164.9	153.2	109.5
Deposits	147.7	117.5	156.3
Claims admitted	134.7	144.8	142.7
Sundry creditors	166.7	153.4	261.9
Provision for taxation	329.1	388.6	502.2
Provision for superannuation and long-service leave	41.2	49.2	57.9
Miscellaneous liabilities	25.6	237.1	95.4
Total liabilities	**20,393.8**	**23,076.7**	**26,551.6**
Assets—Australia and overseas—			
Property and fixed assets	4,740.9	5,386.5	5,815.1
Loans	2,566.5	3,054.3	2,999.4
Investment	11,985.7	13,587.8	16,380.7
Cash and deposits	386.7	284.8	380.5
Outstanding premiums including advances of premiums	310.1	327.1	344.0
Outstanding interest, dividends and rents	281.5	332.1	380.1
Sundry debtors	90.2	71.5	210.8
Miscellaneous assets	32.3	32.6	41.0
Total assets	**20,393.8**	**23,076.7**	**26,551.6**

LIFE INSURANCE OFFICES: REVENUE AND EXPENDITURE

($ million)

	1981	*1982*	*1983*
Balance of Revenue Account at beginning of year—Australia and overseas	*17,516.4*	*19,161.4*	*21,563.5*
Revenue—			
Single premiums	389.2	320.3	455.2
Other premiums	2,684.1	3,049.1	3,331.3
Net interest	1,515.5	1,782.7	1,954.3
Net conversion and transfer values-in	0.8	13.8	2.7
Net transfers from reserves and provisions within fund	–27.5	–45.0	–2.6
Other net transfers within statutory fund-in	–0.2	–	–
Net profit (or loss) on realisation or revaluation of assets	269.2	433.6	1,457.6
Miscellaneous income	–460.4	92.7	–91.2
Total revenue	**4,370.9**	**5,647.3**	**7,107.3**
Total	**21,887.3**	**24,808.7**	**28,670.8**
Expenditure—			
Claims by death and disability	392.2	472.6	506.5
Claims by maturity	577.6	711.4	918.5
Surrenders and bonuses in cash	952.7	1,175.5	1,250.9
Annuities	12.5	14.8	16.4
Commissions	299.9	352.1	386.3
Salaries	221.1	256.4	275.4
Contribution to staff superannuation	43.5	50.8	54.0
Taxes (other than those charged on interest dividends and rents)	31.5	25.3	32.1
Other expenses	176.1	220.9	257.1
Transfer out of statutory fund	18.8	–34.6	26.8
Total expenditure	**2,725.9**	**3,245.2**	**3,724.0**
Balance of Revenue Account at end of year—Australia and overseas	*19,161.4*	*21,563.5*	*24,946.7*
Total	**21,887.3**	**24,808.7**	**28,670.8**

LIFE INSURANCE: SUMMARY

	Insurance and endowment policies			
	Number of policies ('000)	*Sum insured ($ million)*	*Business issued by single premiums ($ million)*	*Annual premiums ($ million)*
ORDINARY AND INDUSTRIAL BUSINESS				
New policies issued—				
1981	398	13,604.5	116.8	131.7
1982	412	15,454.0	115.3	144.1
1983	527	17,959.0	310.8	175.9
Policies discontinued or reduced(*a*)—				
1981	718	9,162.6	..	118.1
1982	734	9,973.6	..	126.8
1983	683	11,078.0	..	128.7
Policies existing at end of—				
1981	6,441	76,047.0	..	953.0
1982	6,119	81,526.9	..	970.2
1983	5,963	88,440.0	..	1,017.4
SUPERANNUATION BUSINESS				
New policies issued—				
1981	196	22,035.9	128.3	440.4
1982	190	24,113.5	196.0	493.2
1983	155	20,711.0	175.8	442.4
Policies discontinued or reduced(*a*)—				
1981	84	7,276.4	..	158.8
1982	86	10,046.0	..	220.0
1983	75	15,798.0	..	258.1
Policies existing at end of—				
1981	892	63,859.3	..	1,390.8
1982	997	77,926.7	..	1,663.9
1983	1,077	82,835.0	..	1,849.2

(*a*) Includes net transfers and conversions off.

GENERAL INSURANCE

The following statistics have been compiled from returns collected under the *Census and Statistics Act 1905* and relate to the operations of:

(*a*) *Bodies corporate* authorised to carry on insurance business under the *Insurance Act 1973* (*see* page 472);

(*b*) *Brokers* in respect of business placed with overseas insurers; and

(*c*) *Government instrumentalities*, i.e. State Government Insurance Offices and Commonwealth Government and State Government instrumentalities in respect of their general insurance business.

These statistics are based on the following definitions:

Premiums comprise the full amount receivable in respect of direct insurance and facultative reinsurance business written or renewed within Australia (including business placed overseas by Australian brokers) during the year less (a) outward facultative reinsurance within Australia, (b) stamp duty and fire service charges paid, and (c) returns, rebates and bonuses paid or credited to policy holders. Premiums are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year.

Claims comprise, for direct insurance and facultative reinsurance business, payments made during the year plus the estimated amount of outstanding claims at the end of the year less the estimated amount of outstanding claims at the beginning of the year. Salvage and other amounts recoverable have been deducted.

In many instances brokers have no knowledge of claims made by the insured on overseas insurers in respect of business placed through them. Because of this, no details of claims are collected from brokers.

Information contained in the following tables does not relate to uniform accounting periods but to the financial years of the organisations which ended during the years shown.

More detailed descriptions and dissections of these statistics may be found in the annual publication *General Insurance, Australia* (5620.0).

GENERAL INSURANCE: PREMIUMS AND CLAIMS BY PRINCIPAL CLASS OF BUSINESS

($ million)

Class of business	*1980–81*	*1981–82*	*1982–83*
PREMIUMS(*a*)			
Fire(*b*)	305.9	352.8	382.1
House Owners' and House-holders'	379.6	459.8	559.0
Contractors' All Risks	26.8	39.1	44.3
Marine and Aviation	134.0	139.7	147.7
Motor Vehicle Comprehensive	914.6	1,042.2	1,224.9
Compulsory Third Party (Motor Vehicle)	768.4	910.4	1,035.8
Employers Liability(*c*)	875.7	1,175.8	1,755.0
Public Liability(*d*)	134.4	170.7	225.1
All other	384.3	430.8	487.4
Total	**3,923.7**	**4,721.3**	**5,861.3**
CLAIMS(*e*)			
Fire(*b*)	245.7	262.7	332.2
House Owners' and House-holders'	267.8	273.9	374.8
Contractors' All Risks	18.8	30.4	24.3
Marine and Aviation	84.0	105.8	97.0
Motor Vehicle Comprehensive	740.2	861.4	918.8
Compulsory Third Party (Motor Vehicle)	850.5	1,107.9	1,402.0
Employers Liability(*c*)	922.4	1,324.8	1,551.8
Public Liability(*d*)	78.3	107.8	119.1
All other	201.7	215.5	242.4
Total	**3,409.4**	**4,290.1**	**5,062.4**

(*a*) Includes premiums received by brokers 1980–81, $89.1 million; 1981–82, $94.7 million; 1982–83, $145.1 million. (*b*) Includes sprinkler leakage, loss of profits, and crop and hailstone insurance. (*c*) Excludes workers' compensation insurance in the coal mining industry in N.S.W. (*d*) Includes product liability and professional indemnity insurance. (*e*) Excludes brokers.

SUPERANNUATION FUNDS AND SCHEMES

The following statistics have been compiled from the Census of Superannuation Funds, 1982-83. These estimates are preliminary and subject to revision. They are based on aggregates of responses from about 88% of superannuation funds within the scope of the census. However, most of the data items are expected to account for more than 88% of the totals for all funds. Detailed definitions and final results from the census are provided in ABS publications *Census of Superannuation Funds, Australia 1982-83* (5636.0) and *Public Authority Pension and Superannuation Schemes, Australia 1982-83* (5511.0).

The census of superannuation funds included superannuation schemes and funds whose primary purpose is to provide benefits on retirement of the following types:

Private sector funds:
  Restricted membership funds:
    Employees' funds
    Self-employed persons' one member funds
    Self-employed persons' group funds
  Open funds
Public sector funds and schemes:
  Self-administered funds
  Life insurance offices funds and schemes

Excluded from the census were:

(a) Private sector funds that were wholly administered by life insurance offices and
(b) Superannuation arrangements in the private sector that are unfunded (i.e. where the benefits are met from the employer's resources as they are payable), and
(c) Public sector schemes funded from Consolidated Revenue.

PRIVATE SECTOR FUNDS AND PUBLIC SECTOR SELF-ADMINISTERED FUNDS: INCOME, EXPENDITURE, ASSETS, LIABILITIES, MEMBERS AND PENSIONERS, 1982–83

	Private sector funds						
	Restricted membership						
		Self-employed					
	Employees	*One member*	*Group*	*Open funds*	*Total private sector*	*Public sector self administered funds*	*Total*
	($ million)						
Income—							
Contributions—							
Employees	368.0	0.5	3.5	21.0	393.0	710.5	1,103.5
Employers	841.9	—	—	—	841.9	1,223.6	2,065.5
Interest, dividends and rent	999.4	0.4	5.2	13.9	1,018.9	972.6	1,991.5
Other Income	464.7	—	2.0	4.1	470.8	186.9	657.7
Total income	**2,674.0**	**0.9**	**10.7**	**39.0**	**2,724.6**	**3,093.6**	**5,818.2**
Expenditure—							
Pensions	89.2	—	—	—	89.2	586.2	675.4
Lump sum payments	1,240.7	1.2	5.0	25.3	1,272.2	753.9	2,026.1
Other expenditure	314.0	—	0.6	5.0	319.6	133.6	453.2
Total expenditure	**1,643.9**	**1.2**	**5.6**	**30.3**	**1,681.0**	**1,473.7**	**3,154.7**
Assets—							
Cash and savings and trading bank deposits	288.5	0.7	1.4	0.6	291.2	110.5	401.7
Placements with authorised dealers in the short term money market	106.9	—	1.8	20.8	129.5	50.9	180.4
Other placements and deposits	365.4	0.1	1.8	3.2	370.5	386.6	757.1
Bills of exchange and promissory notes held	147.0	—	—	—	147.0	328.0	475.0
Government and public authority securities	2,842.9	1.0	13.9	45.4	2,903.2	3,966.1	6,869.3
Other securities	3,019.3	0.3	16.7	51.6	3,087.9	1,689.7	4,777.6
Financial lease receivables	13.6	—	—	—	13.6	20.3	33.9
Loan outstandings	714.1	0.6	3.8	19.2	737.7	1,129.0	1,866.7
Other assets	3,224.8	2.4	16.7	92.0	3,335.9	2,886.9	6,222.8
Total assets	**10,722.5**	**5.1**	**56.1**	**232.8**	**11,016.5**	**10,568.0**	**21,584.5**
Liabilities—							
Accumulated Funds	10,581.4	5.1	55.8	228.8	10,871.1	10,450.2	21,321.3
Accounts payable and other liabilities	141.1	—	0.3	4.0	145.4	117.8	263.2
Total liabilities	**10,722.5**	**5.1**	**56.1**	**232.8**	**11,016.5**	**10,568.0**	**21,584.5**
Members at last balance date (No.)	626,118	595	8,902	76,481	712,096	707,853	1,419,949
Pensioners at last balance date (No.)	24,683	—	—	—	24,683	114,405	139,088
Funds (No.)	15,285	595	95	18	15,993	80	16,073

PUBLIC SECTOR LIFE INSURANCE OFFICE INVESTED SCHEMES: INCOME, EXPENDITURE AND MEMBERSHIP 1982–83

	($ million)
Income—	
Contributions—	
Members	24.7
Employers	41.9
Other income	45.3
Total income	**111.9**
Expenditure—	
Pensions	1.6
Lump sum payments	39.3
Other expenditure	69.7
Total expenditure	**110.6**
Members at last balance date (No.)	28,799
Funds (No.)	224

INSTALMENT CREDIT FOR RETAIL SALES

Information relating to instalment credit for retail sales in Australia is given in the following tables. More detailed information may be found in the monthly publication *Instalment Credit for Retail Sales, Australia* (5631.0).

These statistics cover the operations of instalment credit schemes which relate primarily to the financing of retail sales of consumer commodities. In general, the term instalment credit is defined as relating to schemes in which repayment is made by regular predetermined instalments (predetermined by amount or by percentage of amount financed or balance outstanding). Types of instalment credit schemes covered include hire purchase, time payment, budget accounts and personal loans where these schemes relate to the financing of retail sales of consumer commodities.

Figures for amounts financed exclude interest, hiring charges, insurance, etc. Figures for balances outstanding and collections include interest, hiring charges, insurance, etc.

INSTALMENT CREDIT FOR RETAIL SALES BY TYPE OF BUSINESS: AMOUNT FINANCED BY COMMODITY GROUP, COLLECTIONS AND BALANCES OUTSTANDING, AUSTRALIA

($ million)

	Amount financed during year					*Collections and other liquidations of balances during year*	*Balances outstanding at end of year*
	Motor cars and station wagons		*Other motor vehicles (a)*	*Household and personal goods*	*Total*		
	New	*Used*					
Finance companies—							
1981–82	501.0	706.7	179.0	397.0	1,783.7	2,333.2	3,544.4
1982–83	482.5	656.6	185.6	398.2	1,722.8	2,608.5	3,671.7
1983–84	591.8	761.0	197.7	441.4	1,991.9	2,779.4	3,959.8
Other businesses (*b*)—							
1981–82	—	0.1	0.4	247.8	248.3	257.6	161.3
1982–83	—	—	0.4	256.2	256.6	271.1	167.3
1983–84	—	—	0.5	251.2	251.7	271.9	179.3
Total all businesses—							
1981–82	**501.0**	**706.8**	**179.4**	**644.8**	**2,032.0**	**2,590.8**	**3,705.8**
1982–83	**482.5**	**656.6**	**186.0**	**654.4**	**1,979.5**	**2,879.6**	**3,839.0**
1983–84	**591.8**	**761.0**	**198.3**	**692.6**	**2,243.7**	**3,051.3**	**4,139.1**

(*a*) Includes new and used motor cycles, boats, caravans, trailers and motor parts and accessories but excludes panel vans, utilities, trucks, tractors and other vehicles normally used for commercial purposes. (*b*) Businesses operating retail establishments, unincorporated finance businesses and businesses other than wholesalers and manufacturers.

INSTALMENT CREDIT FOR RETAIL SALES BY TYPE OF CREDIT: AMOUNT FINANCED BY COMMODITY GROUP, AUSTRALIA

($ million)

	Motor cars and station wagons		*Other motor vehicles (a)*	*Household and personal goods*	*Total*
	New	*Used*			
Hire purchase—					
1981–82	394.0	538.0	139.4	180.4	1,251.8
1982–83	377.6	506.6	148.1	141.9	1,174.2
1983–84	495.7	613.0	160.3	178.1	1,447.1
Other instalment credit—					
1981–82	107.0	168.8	40.0	464.4	780.2
1982–83	104.9	150.0	37.9	512.5	805.3
1983–84	96.1	148.0	38.0	514.5	796.6
Total instalment credit—					
1981–82	**501.0**	**706.8**	**179.4**	**644.8**	**2,032.0**
1982–83	**482.5**	**656.6**	**186.0**	**654.4**	**1,979.5**
1983–84	**591.8**	**761.0**	**198.3**	**692.6**	**2,243.7**

(*a*) Includes new and used motor cycles, boats, caravans, trailers and motor parts and accessories but excludes panel vans, utilities, trucks, tractors and other vehicles normally used for commercial purposes.

HOUSING FINANCE FOR OWNER OCCUPATION

A monthly statistical series was introduced in October 1975 to provide information on finance (secured by mortgage or other security, including secured personal loans and loans secured by contracts of sale) approved by significant lenders to individuals for the construction or purchase of dwellings for owner occupation. A lender is significant if over a financial year it approves loans to individuals for housing finance for owner occupation in excess of $250,000 or if at the end of a financial year it has balances outstanding on such loans exceeding $2 million.

The types of lenders considered in these statistics are trading and savings banks, permanent and terminating building societies, finance companies, government housing authorities and other government departments, insurance companies and credit unions.

The following tables provide information classified by type of lender and the use for which approved housing loans are intended (e.g. construction or purchase).

Purchase of newly erected dwellings represents the purchase of dwellings which have been completed or will be completed within a period of twelve months preceding the date of purchase and where the purchaser is, or will be, the first occupant.

Purchase of established dwellings represents the purchase of dwellings which have been completed for a period of greater than twelve months preceding the date of purchase or, if completed within twelve months, where the purchaser is not the original occupant.

The term *dwelling* includes houses and other dwellings where the latter is defined as a self-contained dwelling unit other than a house. (Examples of *other dwellings* are flats, home units, semi-detached cottages, villa units, town houses, etc.).

The term *number of dwelling units* refers to the number of houses and other dwellings for which loans secured by contract of sale or first mortgage only have been approved.

Comprehensive statistics on housing finance for owner occupation are available in the monthly publication *Housing Finance for Owner Occupation, Australia* (5609.0).

The following table summarises the housing finance operations of the significant lenders.

HOUSING FINANCE FOR OWNER OCCUPATION

($ million)

	Loans approved for—				
	Construction or purchase of dwellings	*Alterations and additions*	*Cancellations of loans previously approved*	*Loans advanced(a)*	*Loans approved but not advanced(a)*
1981–82	6,506.1	524.2	312.8	5,686.6	1,031.4
1982–83	7,171.2	510.1	292.8	6,078.1	1,316.6
1983–84	10,638.9	640.2	389.5	8,934.4	2,044.6

(*a*) Excludes Trading Banks; data not available.

HOUSING FINANCE FOR OWNER OCCUPATION: NUMBER OF DWELLING UNITS AND VALUE OF LOANS APPROVED TO INDIVIDUALS BY TYPE OF LENDER

	Banks		*Building societies*					
	Savings	*Trading*	*Permanent*	*Terminating*	*Finance companies*	*Government*	*Credit unions and insurance companies*	*Total*
CONSTRUCTION OF DWELLINGS								
			(Number)					
1981-82	18,963	6,896	7,130	924	930	2,774	1,224	38,841
1982-83	20,382	5,045	6,953	953	843	2,844	1,231	38,251
1983-84	28,642	6,351	14,558	1,352	1,931	3,309	1,758	57,901
			($ million)					
1981-82	486.6	154.4	256.2	28.5	36.8	75.1	31.4	1,068.9
1982-83	576.2	121.4	262.1	32.1	38.6	84.5	31.0	1,145.9
1983-84	883.4	183.3	586.1	47.4	88.1	100.2	53.3	1,941.8
PURCHASE OF NEWLY ERECTED DWELLINGS								
			(Number)					
1981-82	8,249	3,603	5,572	1,025	1,243	2,640	768	23,100
1982-83	7,928	2,555	3,924	1,039	743	2,302	579	19,070
1983-84	9,667	2,268	4,750	1,357	1,407	1,976	687	22,112
			($ million)					
1981-82	227.9	79.6	215.0	31.7	66.2	74.6	24.4	719.3
1982-83	242.2	61.4	157.1	35.8	40.7	74.3	17.5	629.0
1983-84	313.5	56.7	199.7	49.2	74.3	69.9	25.1	788.3
PURCHASE OF ESTABLISHED DWELLINGS								
			(Number)					
1981-82	74,771	30,202	38,729	2,229	6,179	7,823	7,098	167,031
1982-83	94,088	24,292	37,079	2,944	3,844	7,640	7,040	176,927
1983-84	117,558	24,422	66,440	3,349	5,325	7,543	9,799	234,436
			($ million)					
1981-82	1,934.6	650.3	1,337.8	70.1	288.7	219.4	217.0	4,717.9
1982-83	2,693.2	609.4	1,371.0	100.4	176.1	228.9	217.3	5,396.3
1983-84	3,684.7	723.0	2,584.8	119.6	246.3	238.0	312.5	7,908.8
TOTAL								
			(Number)					
1981-82	101,983	40,701	51,431	4,178	8,352	13,237	9,090	228,972
1982-83	122,398	31,892	47,956	4,936	5,430	12,786	8,850	234,248
1983-84	155,867	33.041	85,748	6,058	8,663	12,828	12,244	314,449
			($ million)					
1981-82	2,649.1	884.3	1,809.0	130.2	391.6	369.1	272.8	6,506.1
1982-83	3,511.6	792.2	1,790.2	168.4	255.4	387.7	265.8	7,171.2
1983-84	4,881.5	963.0	3,370.6	216.1	408.7	408.1	390.9	10,638.9

NEW CAPITAL RAISINGS BY COMPANIES LISTED ON AUSTRALIAN STOCK EXCHANGES

Information relating to capital raised by companies listed on Australian Stock Exchanges is given in the following tables.

These statistics cover capital raised through share and debenture subscriptions and by way of deposits, unsecured notes and loans secured over the entire assets of the company. The following funds are excluded from the collection: (a) all capital raised from Australian banks (other than direct equity investment), i.e. overdrafts, mortgage loans, term loans or debentures; (b) temporary advances or short-term deposits from any source; and (c) complete or partial issues by Australian companies on overseas markets taken up through overseas brokers.

Listed companies are companies incorporated in Australia whose shares, debentures or other securities are listed on one or more of the Australian Stock Exchanges. For such companies new capital includes: (a) all issues of ordinary shares if any ordinary shares are listed; (b) all issues of preference shares if any preference shares are listed; and (c) all issues of debentures, unsecured notes, secured and unsecured loans and deposits if any shares or other securities are listed.

The following notes relate to specific items in the tables:

New money

This is the net amount of cash transferred from the 'investing public' to the 'company sector'. For this purpose the *investing public* is defined to include all non-company subscribers, Australian life insurance companies, Commonwealth Government and private superannuation funds and banks. In practice, it is necessary to include in *new money* most subscriptions by companies holding less than 5 per cent of the ordinary shares of an issuing company as it is not practicable to separately identify all such subscriptions. However, where large subscriptions by companies holding less than 5 per cent of the ordinary shares in the issuing company are identified they are not included in *new money*. Subscriptions by Australian life insurance companies and Commonwealth Government and private superannuation funds are included in *new money* irrespective of their holdings of ordinary shares in the issuing company.

Amount not involving new money

This amount includes cash subscriptions received by issuing companies from associated companies. Also included are amounts which, although subscribed by the 'investing public' (i.e. subscribers other than 'associated companies'), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc. in associated and subsidiary companies, and therefore do not represent a net transfer of cash from the 'investing public' to the companies. In the tables which follow, the *amount not involving new money* is obtained by deducting the amount of *new money*, from the total capital raised.

LISTED COMPANIES: NEW CAPITAL RAISED THROUGH ISSUES OF SHARES(*a*) AND THROUGH DEBENTURES, UNSECURED NOTES, LOANS AND DEPOSITS

($ million)

	Share capital								
	Total amount of issues commenced			*Cash raised during period*			*Debentures, unsecured notes, etc.*		
	Total amount including premiums etc.	*Type of consideration*							
		Other than cash(b)	*Cash*	*Total(c)*	*Amount not involving new money*	*New money*	*Total amount raised (d)*	*Amount not involving new money (d)*	*New money*
Year ended June—									
1979 . . .	919.5	372.9	546.5	513.1	183.0	330.2	7,532.1	6,653.7	878.4
1980 . . .	2,211.9	824.6	1,387.3	1,336.7	255.1	1,081.6	9,378.0	7,924.6	1,453.4
1981 . . .	4,171.0	1,642.2	2,528.8	2,625.7	479.0	2,146.8	12,682.5	11,066.1	1,616.4
1982 . . .	2,269.6	890.1	1,379.4	1,593.7	290.2	1,303.4	15,453.2	13,639.8	1,813.5
1983 . . .	1,208.1	299.2	908.9	1,013.5	269.5	744.0	13,805.0	13,219.0	586.1
1984 . . .	2,809.4	731.7	2,077.7	1,764.7	409.9	1,354.8	13,674.2	13,196.9	477.2

(*a*) Includes share subscriptions by overseas investors to issues in Australia. (*b*) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (*c*) Includes calls on issues commenced in earlier years. (*d*) Includes conversions, renewals, etc.

LISTED COMPANIES: NEW MONEY RAISED IN SHARES AND DEBENTURES, UNSECURED NOTES, LOANS AND DEPOSITS—INDUSTRY GROUPS (a)

($ million)

	Manufacturing	*Finance, Property and Business Services*	*Wholesale and Retail Trade*	*Mining*	*Other*	*All industries*
			SHARES			
Year ended June—						
1979	95.8	74.3	9.9	122.4	27.8	330.2
1980	419.9	119.8	55.2	396.1	90.7	1,081.6
1981	892.3	119.8	130.9	905.6	98.2	2,146.8
1982	383.3	74.1	129.9	566.1	150.1	1,303.4
1983	319.7	74.1	95.0	170.1	85.1	744.0
1984	281.7	251.5	53.7	663.3	104.6	1,354.8
			DEBENTURES, UNSECURED NOTES, LOANS AND DEPOSITS			
Year ended June—						
1979	302.5	605.9	8.2	(*b*)—57.8	19.4	878.4
1980	409.9	887.7	86.3	15.6	53.9	1,453.4
1981	337.4	1,145.3	57.1	5.8	70.6	1,616.4
1982	211.6	1,443.0	117.0	(*b*)—44.4	86.3	1,813.5
1983	18.8	491.4	(*b*)—12.5	5.7	82.6	586.1
1984	(*b*)—73.9	353.0	22.4	79.3	96.5	477.2
			TOTAL NEW MONEY RAISED			
Year ended June—						
1979	398.3	680.2	18.1	64.6	47.2	1,208.6
1980	829.8	1,007.5	141.5	411.7	144.6	2,535.0
1981	1,229.7	1,265.1	188.0	911.4	168.8	3,763.2
1982	594.9	1,517.1	246.8	521.7	236.4	3,116.9
1983	338.5	565.5	82.5	175.8	167.7	1,330.1
1984	207.7	604.5	76.1	742.6	201.2	1,832.1

(*a*) Until 1981 companies were classified in accordance with the Population Census Classification of Industries (Revised 1966) and from 1982 in accordance with the Australian Standard Industrial Classification (ASIC). (*b*) Excess of repayments over receipts.

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CHAPTER 22

PUBLIC FINANCE

This chapter deals with the financial activities of the organisations which make up the three levels of government in the Australian political system—Commonwealth, State and Local—and which collectively constitute the public sector. An account is given of the activities of each level of government, with particular emphasis being given to Commonwealth authorities. Tables are then presented which bring together the transactions of all public authorities to highlight the role in the Australian economy of the public sector as a whole. Then follows a section on government borrowing activities at all levels.

COMMONWEALTH GOVERNMENT FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth of Australia are contained in Sections 81 to 105A of the Commonwealth Constitution.

Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51. Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments.

Sections 87 and 96 of the Constitution deal with the financial relations between the Commonwealth and the States. The full text of the Financial Agreement of 1927 was given in Year Book No. 31, page 21; accounts of this Agreement as affected by subsequent Agreements were included in later issues of the Year Book up to No. 37 (*see* pages 685–90); details of the main provisions appeared in further issues of the Year Book up to No. 50 (*see* pages 952–3). For details of current provisions for financial assistance to the States reference should be made to the Commonwealth Budget Paper No. 7 *Payments to or for the States, the Northern Territory and Local Government Authorities, 1984–85.*

The *Audit Act* 1901 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth Government finances is the responsibility of the Commonwealth Minister for Finance.

Commonwealth Government Budget

The Commonwealth Government Budget records the transactions of those authorities of the Commonwealth Government whose receipts and payments are summarised in the statements of Public Account balances. In 1983–84 the change in cash balances was represented by the following—

	$'000
Cash receipts of the Consolidated Revenue Fund	50,919,754
plus cash receipts of Loan Fund	30,674,831
plus cash receipts of Trust Fund	20,118,436
Total	*101,713,022*
less cash payments from Consolidated Revenue Fund	50,919,754
less cash payments from Loan Fund	30,825,651
less cash payments from Trust Fund (including decrease in investments of the Trust Fund)	19,905,857
Total	*101,651,263*
equals increase in cash balances	274,395

Revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, social services, payments to the States and general administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth Government at some future time. The Loan Fund receives its funds from the sale of Commonwealth Government securities, and the expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States by way of distribution of the proceeds of loans raised by the Commonwealth Government on their behalf and by capital assistance grants, the remaining disbursements being mainly for Commonwealth Government purposes.

The estimated receipts and outlay of the Budget for 1984–85 are set out in the table which follows, together with figures for the years 1979–80 to 1983–84. The national accounting presentation of the Budget is shown in order to be consistent with other transactions figures given in this chapter.

It should be noted that some transactions undertaken by authorities covered by the Budget are not reflected in the change in cash balances, usually because they are not cash transactions or because a receipt and a payment are offset against each other so that only a net amount is included in published totals. The national accounting presentation of the Budget includes these additional transactions, further details of which may be found in Budget Paper No. 1, *Budget Statements 1984–85*.

OUTLAYS AND RECEIPTS OF THE COMMONWEALTH BUDGET

($ million)

(*Source:* Budget Paper No. 1 *Budget Statements 1984-85*)

	1979–80	*1980–81*	*1981–82*	*1982–83*	*1983–84*	*1984–85 Budget Estimates*
Outlay—						
Net expenditure on goods and services—						
Current	6,132	7,262	8,528	9,791	11,334	12,786
Capital(*a*)	290	438	432	605	580	840
Total	6,423	7,703	8,959	10,441	11,914	13,627
Transfer payments—						
Personal benefit payments	9,895	11,213	13,067	15,941	18,703	21,315
Unfunded employee retirement benefits	181	207	252	292	330	355
Grants to States and local government authorities	10,302	11,514	12,642	14,726	17,014	18,723
Grants to the Northern Territory	361	469	539	635	741	848
Interest paid	2,223	2,561	2,881	3,378	4,334	5,601
Transfers overseas	520	575	667	735	790	863
Subsidies	600	760	869	938	1,021	1,034
Grants for private capital purposes	165	137	204	244	332	382
Purchase of existing assets (net) (*b*)	−5	−178	−11	−10	−46	−87
Total	24,242	27,258	31,111	36,880	43,218	49,033
Net advances—						
States	817	854	785	975	911	759
Northern Territory	79	83	80	83	88	85
Commonwealth authorities	110	179	344	611	324	374
Other sectors	−32	22	28	−3	115	70
Total	974	1,139	1,237	1,666	1,438	1,288
Total outlay	*31,637*	*36,098*	*41,305*	*48,935*	*56,570*	*63,948*
Receipts—						
Taxation—						
Income tax on companies	3,547	4,856	5,258	5,107	4,940	5,951
Income tax on persons	15,040	17,543	21,224	22,967	24,710	30,388
Sales tax, Customs and Excise Duties	8,459	9,820	11,004	12,398	14,293	15,531
Tax on Certain Bank Transactions	–	–	–	30	183	190
Unfunded employee retirement contributions	67	73	86	90	95	99
A.C.T. Taxes and charges	53	61	72	91	102	116
Less remissions	1	1	2	1	. .	. .
Other taxes, fees, fines, etc.	141	116	141	152	174	186
Total	27,305	32,467	37,784	40,834	44,497	52,460
Other receipts—						
Interest, rent and dividends	2,033	2,280	2,589	2,928	3,318	3,680
Gross income of public enterprises	265	240	385	700	794	1,063
Total	2,298	2,520	2,974	3,628	4,112	4,743
Total receipts	*29,603*	*34,988*	*40,758*	*44,462*	*48,610*	*57,203*
Deficit	**2,034**	**1,109**	**548**	**4,473**	**7,961**	**6,745**

(*a*) Expenditure on new fixed assets *plus* increase in stocks *less* sales of previously rented houses. (*b*) Excludes sales of previously rented houses.

Financing of the Commonwealth Government deficit

The deficit shown in the last line of the preceding table represents the net excess of Budget outlay over receipts. In other words, the estimated deficit shown for 1984–85 represents the Commonwealth Government budget sector's 'financing requirements'. Most such transactions involve the issue, repurchase, redemption or acquisition of Commonwealth Government securities, but some involve or are represented by changes in other assets or liabilities of the Commonwealth Government.

Specifically the deficit is financed as follows:

Net sales of Commonwealth Government securities (new issues *less* redemptions *less* net purchases from Commonwealth Government balances in the Trust Fund);

less net purchases of other investments from Commonwealth Government balances in the Trust Fund

plus minor items of indebtedness (such as borrowing by Australian Capital Territory housing trust account)

less net additions to cash balances, and funds provided for the International Monetary Fund and the Australian Wheat Board.

A table summarising the financial transactions of the Commonwealth Government budget sector for recent years is given on page 387, Table 1 in 1984–85 *Budget paper* No. 1.

COMMONWEALTH NON-BUDGET AUTHORITIES

In addition to the group of authorities of the Commonwealth Government whose transactions are covered by the Budget (i.e. itemised in the Consolidated Revenue Fund, the Loan Fund, or recorded in a Trust Fund), there are a number of organisations owned or controlled by the Commonwealth Government whose transactions do not, for the most part, pass through the Public Account. This category includes public enterprises such as the Australian Postal Commission, Australian Telecommunications Commission, Overseas Telecommunications Commission, Qantas, Trans-Australia Airlines, the Australian Shipping Commission, the Snowy Mountains Hydro-electric Authority, the Reserve Bank and the Commonwealth Banking Corporation. Public enterprises, it should be noted, are bodies which aim at covering the bulk of their expenses by revenue either from sales of goods and services (trading enterprises), or by charges for services and net interest receipts (financial enterprises). As well as these enterprises, there are other public authorities which record most of their transactions outside the Public Account but have only minor independent sources of revenue and are financed almost entirely from funds voted to them each year from the Consolidated Revenue Fund. In order that the national accounting presentation may indicate as completely as possible the direct effect of the budget on demand, appropriations to this last group of authorities are treated as final expenditure in the Budget. Authorities in this category include the Australian Broadcasting Commission, Australian National University, National Capital Development Commission, and the Australian Atomic Energy Commission.

The transactions of Commonwealth Government bodies not covered by the Budget may be brought together and consolidated with the transactions recorded in the Budget to yield figures of the transactions of all Commonwealth authorities. The remaining tables in this section have been prepared on that basis.

Public financial enterprises have been omitted from the consolidated accounts presented here largely on the ground that combining the income and outlay and capital financing transactions of the Reserve Bank, the publicly owned trading and savings banks, government insurance offices and other public financial institutions with the equivalent transactions of public trading enterprises and general government seems to provide a less meaningful account of public sector activity. For example, omission of the borrowing and lending activities of the government banks and the Reserve Bank allows attention to be centred on the borrowing and lending activities of general government and public trading enterprises, which are quite different in nature and economic effect from the financing activities of the banking system.

Coverage—Northern Territory government authorities

On 1 July 1978 the Northern Territory became self-governing with expenditure responsibilities and revenue raising powers broadly approximating those of a State. In public authority finance statistics Northern Territory government authorities are grouped with State and local authorities from 1978–79 onwards. This results in a discontinuity in time series for the financial transactions of Commonwealth Government authorities because:

- In the period up to and including 1977–78 Commonwealth spending on State-type services in the Northern Territory is included under the various Commonwealth outlay categories such as final consumption expenditure and gross capital formation. Similarly, State-type taxation and income from N.T. public enterprises is included in the respective Commonwealth receipt categories.

- From 1978–79 onwards Commonwealth spending in respect of the Northern Territory consists to a large extent of grants and advances to Northern Territory government authorities while State-type taxation and income from N.T. public enterprises are no longer part of Commonwealth receipts.
- Not all State-type functions were fully transferred to the Northern Territory Government from 1 July 1978. Responsibility for health services was transferred on 1 January 1979 and responsibility for education services was transferred from 1 July 1979. The Commonwealth retains responsibility for certain State-type matters such as uranium mining and Aboriginal affairs (other than provision of services to Aboriginal communities).

Summary of outlay and receipts

The outlay and receipts, and outlay classified by purpose, of all Commonwealth authorities for the six-year period ending 1981–82 are given in the following tables.

COMMONWEALTH AUTHORITIES(*a*): OUTLAY AND RECEIPTS

($ million)

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
OUTLAY						
Current outlay—						
Final consumption expenditure	4,728	5,239	5,657	6,318	7,425	8,710
Interest, etc., paid	1,446	1,738	2,074	2,363	2,753	3,138
Transfers to persons—						
Personal benefit payments	7,392	8,285	9,110	9,904	11,235	13,091
Unfunded employee retirement benefits	121	139	162	181	207	252
Subsidies	252	424	526	690	856	948
Transfers overseas	388	417	475	520	575	668
Grants to States, Northern Territory and local government authorities	6,115	7,222	8,147	9,092	10,307	11,401
Total current outlay	*20,442*	*23,464*	*26,151*	*29,068*	*33,358*	*38,208*
Capital outlay—						
Expenditure on new fixed assets	1,667	1,772	1,512	1,606	1,965	2,158
Expenditure on existing assets	4	−14	−93	−28	−419	−264
Increase in stocks	−50	−121	−206	−67	75	165
Grants for private capital purposes	110	130	132	167	138	228
Grants to States, Northern Territory and local government authorities	1,546	1,516	1,492	1,570	1,676	1,778
Advances to States, Northern Territory and local government authorities	1,278	1,261	1,127	896	936	862
Advances to other sectors	110	53	18	6	77	59
Total capital outlay	*4,665*	*4,597*	*3,982*	*4,150*	*4,448*	*4,986*
Total outlay	**25,107**	**28,062**	**30,133**	**33,219**	**37,807**	**43,195**
RECEIPTS AND FINANCING ITEMS						
Receipts—						
Taxes, fees, fines, etc.	19,765	21,494	23,466	27,548	32,714	37,991
Income from public enterprises	657	819	1,010	992	992	1,319
Interest received from the States and the Northern Territory	1,032	1,174	1,278	1,376	1,569	1,738
Other interest, etc., received	161	207	185	239	290	339
Total receipts	*21,616*	*23,695*	*25,939*	*30,155*	*35,565*	*41,387*
Financing items—						
Depreciation allowances	442	494	550	596	694	754
Funds provided for (−), or received from (+), International Monetary Fund	–	–	28	61	−107	–
Net sale of securities—						
Treasury bills and notes	363	194	1,547	705	1,312	−347
Commonwealth Government securities	2,098	2,979	2,470	893	−187	693
Public corporations securities	446	331	193	442	205	400

COMMONWEALTH AUTHORITIES(*a*): OUTLAY AND RECEIPTS—*continued*

($ million)

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
Net receipts of private trust funds	60	152	161	181	301	386
Reduction in cash and bank balances	−297	214	−480	525	−334	−83
Reduction in securities holdings	166	−232	−344	−590	192	114
Other funds available (including errors and omissions)—						
Other reserves and provisions	15	9	33	38	15	
Capital transfers	151	167	41	59	43	
Change in creditors/debtors	25	−4	−59	82	43	−109
Other	22	64	54	72	64	
Total financing items	*3,492*	*4,368*	*4,194*	*3,064*	*2,241*	*1,808*
Total funds available	**25,107**	**28,062**	**30,133**	**33,219**	**37,807**	**43,195**

(*a*) Excludes financial enterprises.

Components of Outlay and Receipts

For further details about the components of outlay and receipts of Commonwealth Authorities, see Year Book No. 68. Over recent years a range of new and revised classifications has been developed for use in the compilation and presentation of government finance statistics. The first series of publications using these classifications (see below) have recently been released and the statistics shown are, in general, not directly comparable with those published for earlier years.

Commonwealth Government Finance (5502.0) 1983-84
State and Local Government Finance (5504.0) 1982-83
Taxation Revenue (5506.0) 1983-84
Government Financial Estimates (5501.0) 1984-85

Details of the new classifications and an explanation of the main differences between the new and old classifications are given in the *Classifications Manual for Government Finance Statistics* (1217.0)

Grants and advances to the States and the Northern Territory

Commonwealth Government financial assistance to the States and the Northern Territory takes two main forms: (i) grants for general and specific purposes, and (ii) assistance for developmental and other specific purposes in the form of repayable advances. Some information about these forms of financial assistance is given below, but for more complete information reference should be made to the Commonwealth Government Budget Paper No. 7 *Payments to or for the States, the Northern Territory and Local Government Authorities.* Further information also appears in chapters of this Year Book dealing with the specific function which the payments are designed to serve.

Grants to the States and the Northern Territory

The following tables show details of grants to the States and the Northern Territory classified by purpose.

GRANTS TO STATES AND NORTHERN TERRITORY BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE 1982–83

($ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Total*
Current grants	*4,076.8*	*3,101.9*	*2,142.1*	*1,367.1*	*1,374.4*	*510.8*	*533.7*	*13,106.9*
General public services, defence, public order and safety	0.7	0.6	0.6	0.1	0.2	0.2	1.1	3.5
Education	915.4	803.3	395.9	245.1	249.5	72.1	14.2	2,695.4
Primary and secondary education	357.6	311.7	156.8	82.0	85.4	25.6	8.1	1,027.2
Tertiary education	549.3	481.1	231.4	157.1	156.6	45.0	5.5	1,626.1
University education	359.4	238.8	128.7	85.6	73.4	32.3	–	918.2
Other higher education	145.9	215.7	92.0	62.2	72.6	9.5	–	597.9
Technical and further education	44.0	26.6	10.7	9.3	10.6	3.2	5.5	110.0
Preschool education and education not definable by level	8.4	10.4	7.7	6.0	7.5	1.5	0.6	41.9
Preschool education	7.1	9.0	6.6	3.7	4.9	1.4	0.3	33.0
Other education not definable by level	1.2	1.3	1.1	2.3	2.6	0.1	0.3	8.8
Other education	0.1	0.1	–	–	–	–	–	0.2
Health	18.4	4.3	5.6	166.2	8.2	45.7	0.4	248.8
Hospitals and other institutional services and benefits	12.9	–	–	162.1	–	45.3	–	220.3
Clinic and other non-institutional services and benefits	2.9	3.9	1.3	2.0	1.0	0.2	0.1	11.4
Public health	2.6	0.4	4.3	2.1	7.2	0.2	0.3	17.1

GRANTS TO STATES AND NORTHERN TERRITORY BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE 1982-83—*continued*

($ million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Total*
Social security and welfare	20.2	19.0	7.0	8.3	5.0	2.7	0.5	62.7
Social security	–	–	–	–	–	1.2	–	1.2
Welfare services	13.2	13.7	5.2	6.6	4.8	1.5	0.5	45.5
Family and child welfare	5.5	6.5	1.8	3.6	1.6	0.7	0.4	20.2
Aged and handicapped welfare	6.3	6.9	3.0	1.3	1.4	0.8	0.1	19.8
Welfare services, nec.	1.4	0.3	0.4	1.7	1.8	–	–	5.6
Social security and welfare, nec.	7.0	5.3	1.8	1.7	0.2	–	–	16.0
Housing and community amenities	1.8	1.4	0.4	1.0	1.0	0.3	0.8	6.8
Housing and community development	1.8	1.4	0.4	1.0	1.0	0.3	0.8	6.8
Housing	1.8	1.4	0.4	1.0	0.6	0.3	–	5.5
Community development	–	–	–	0.1	0.4	–	0.8	1.3
Fuel and energy	–	–	–	–	–	–	61.5	61.5
Agriculture, forestry, fishing and hunting	5.9	4.4	10.7	2.2	1.5	0.5	3.7	29.0
Agriculture	5.9	4.4	10.7	2.2	1.5	0.5	3.7	29.0
Agricultural land management	5.7	4.3	10.7	2.2	1.4	0.1	3.7	28.1
Other agriculture	0.2	0.1	–	–	0.1	0.4	–	0.9
Transport and communications	0.1	0.1	–	–	–	–	–	0.2
Road transport	0.1	0.1	–	–	–	–	–	0.2
Other economic affairs	45.9	26.4	18.6	8.8	9.5	2.9	0.8	112.9
Other purposes	3,068.4	2,242.4	1,703.3	935.4	1,099.5	386.4	450.6	9,886.0
General purpose inter-government transactions	3,005.9	2,167.3	1,680.3	917.0	1,098.0	385.1	450.6	9,704.2
Natural disaster relief	62.5	75.1	23.0	18.4	1.5	1.3	–	181.8
Capital grants	*653.1*	*492.3*	*374.8*	*222.6*	*231.2*	*120.1*	*100.3*	*2,194.4*
Education	150.3	109.0	55.9	36.8	35.5	10.5	7.1	405.2
Primary and secondary education	63.7	49.5	30.1	16.0	16.0	5.2	3.5	184.0
Tertiary education	86.2	59.5	25.3	20.7	19.2	5.3	3.5	219.7
University education	21.6	13.1	8.0	4.5	3.5	1.4	–	52.1
Other higher education	14.8	12.6	4.7	3.5	3.6	0.4	–	39.6
Technical and further education	49.8	33.8	12.6	12.7	12.1	3.5	3.5	128.0
Preschool education and education not definable by level	0.4	–	0.5	0.1	0.3	–	0.2	1.5
Other education not definable by level	0.4	–	0.5	0.1	0.3	–	0.2	1.5
Health	0.3	0.6	0.2	0.3	0.3	1.6	–	3.2
Hospitals and other institutional services and benefits	–	–	–	–	–	1.4	–	1.4
Clinic and other non-institutional services and benefits	0.2	0.2	–	0.2	0.1	–	–	0.7
Public health	0.1	0.4	0.2	0.1	0.2	0.2	–	1.2
Social security and welfare	16.0	9.3	6.0	3.8	3.2	1.6	0.5	40.3
Social security	2.7	1.9	0.9	0.7	0.4	0.3	–	6.9
Welfare services	13.3	7.4	5.1	3.1	2.8	1.3	0.5	33.4
Family and child welfare	1.1	–	–	–	–	–	–	1.1
Aged and handicapped welfare	12.2	7.4	5.1	3.1	2.7	1.3	0.5	32.3
Welfare services, nec.	–	–	–	–	0.1	–	–	0.1
Housing and community amenities	67.9	45.3	38.4	39.3	40.1	9.3	16.2	256.5
Housing and community development	66.6	42.3	33.8	25.2	25.8	9.2	14.4	217.3
Housing	63.4	42.3	32.3	22.8	25.6	9.2	12.8	208.4
Community development	3.2	–	1.5	2.4	0.2	–	1.6	8.9
Community amenities	1.3	3.0	4.6	14.1	14.3	0.1	1.8	39.2
Recreation and culture	2.6	1.0	0.9	0.9	0.7	1.8	1.0	8.9
Fuel and energy	–	–	–	–	–	–	2.4	2.4
Agriculture, forestry, fishing and hunting	4.4	4.5	9.3	3.1	4.7	0.4	2.0	28.4
Agriculture	4.4	4.5	9.3	3.1	4.7	0.4	2.0	28.4
Agricultural water resources management	3.7	3.4	8.8	2.3	4.2	0.3	1.9	24.6
Other agriculture	0.7	1.1	0.5	0.8	0.5	0.1	0.1	3.8
Transport and communications	263.6	203.1	200.0	78.8	103.6	52.8	30.9	932.9
Road transport	263.6	168.1	180.0	68.8	103.6	52.8	30.9	867.9
Rail transport	–	35.0	–	–	–	–	–	35.0
Other transport and communications	–	–	20.0	10.0	–	–	–	30.0
Other economic affairs	–	–	–	–	–	10.0	–	10.0
Other purposes	148.0	119.5	64.1	59.6	43.1	32.1	40.2	506.6
General purpose inter-government transactions	148.0	115.0	60.7	59.6	42.3	32.1	40.2	497.9
Natural disaster relief	–	4.5	3.4	–	0.8	–	–	8.7
Total current and capital grants	**4,729.9**	**3,594.1**	**2,516.9**	**1,589.5**	**1,605.6**	**630.9**	**634.0**	**15,301.3**

Advances to the States and the Northern Territory

The Commonwealth is also providing financial assistance for State projects by way of repayable advances. Borrowings of the Loan Council which are advanced to the States for their work programs and advances for State housing projects represent the largest proportion of the total funds advanced. Full descriptions of the various programs for which funds have been advanced in recent years are given in *Payments to or for the States, the Northern Territory and Local Government Authorities.*

The following table shows figures of net advances to the States and Northern Territory by purpose.

NET ADVANCES TO STATES AND N.T. BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE 1982-83

($ Million)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Total*
Net advances	*299.1*	*234.6*	*171.8*	*129.3*	*77.2*	*56.5*	*83.3*	*1,051.9*
Defence	4.2	0.2	2.1	—	0.7	—	—	7.2
Housing and community amentities	76.3	105.8	19.9	33.7	19.8	16.5	6.3	278.3
Housing and community development	76.7	106.1	20.1	33.9	20.7	16.5	6.4	280.5
Housing	52.3	99.8	20.1	39.4	16.6	16.5	6.4	251.2
Community development	24.4	6.3	—	−5.5	4.1	—	—	29.3
Water supply	—	—	−0.1	−0.1	−0.8	—	—	−1.0
Sanitation and protection of the environment	−0.4	−0.3	−0.1	−0.1	−0.1	—	−0.1	−1.2
Fuel and energy	—	—	5.5	—	—	—	−1.5	4.1
Agriculture, forestry, fishing and hunting	−2.3	−0.9	37.6	11.8	0.6	0.2	0.5	47.4
Agriculture	−2.1	−0.8	37.5	0.7	0.5	—	0.5	36.3
Agriculture land management	—	—	−0.7	—	—	—	—	−0.7
Agriculture water resources management	−2.4	−0.2	—	—	−0.1	—	—	−2.7
Agriculture support schemes	0.3	−0.6	38.2	0.7	0.6	—	0.5	39.7
Forestry, fishing and hunting	−0.2	−0.1	0.1	11.1	0.1	0.2	—	11.1
Mining, manufacturing and construction	—	—	—	—	—	−0.2	—	−0.2
Manufacturing	—	—	—	—	—	−0.2	—	−0.2
Transport and communications	6.3	8.4	3.3	—	−1.1	−0.1	—	16.8
Water transport	—	—	−0.1	—	—	−0.1	—	−0.2
Rail transport	6.3	8.4	3.4	—	−1.1	—	—	17.0
Other purposes	214.6	121.1	103.4	83.8	57.4	40.1	78.0	698.3
General purpose inter-government transactions	200.7	99.5	83.0	66.2	55.8	40.4	77.7	623.3
Natural disaster relief	13.9	21.6	20.4	17.6	1.6	−0.3	0.2	75.0

Minus sign (−) denotes excess of repayments.

Main components of receipts

The main components of the receipts of Commonwealth authorities are taxation, income of public enterprises and other factor income transfers, and borrowing and other financing transactions. Taxation constitutes by far the major source of receipts. In recent years, however, borrowing has become an increasingly significant source of funds for Commonwealth authorities.

In what follows, an account is given of the system of Commonwealth Government taxation, and some details are given of the current operations of Commonwealth public enterprises. Borrowings and other financing activities of Commonwealth authorities are dealt with for convenience in a later section relating to the debt of all public authorities.

Commonwealth Government taxation—summary

The following tables show Commonwealth Government taxation receipts classified by type of tax for the six years ending 1981-82, and the proportion of each type to total collections.

COMMONWEALTH AUTHORITIES: TAXATION BY TYPE OF TAX(*a*)

($'000)

Type of tax	*1976–77*	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
Taxes—						
Income taxes—						
Individuals(*b*)	11,046,664	12,122,158	12,797,174	15,032,479	17,532,123	21,204,499
Superannuation Funds	–	–	–	7,618	11,129	19,816
Companies(*c*)	2,803,079	3,072,372	3,002,052	3,360,357	4,638,923	5,009,596
Dividend (withholding)	71,969	87,700	88,094	99,912	114,108	125,610
Interest (withholding)	24,408	30,153	25,975	41,018	46,596	78,957
Mining (withholding)	–	–	–	200	261	530
Total income taxes	*13,946,120*	*15,312,383*	*15,913,295*	*18,541,584*	*22,343,140*	*26,439,008*
Estate duty	76,189	95,823	82,061	48,398	17,123	4,167
Gift duty	11,486	6,574	1,445	529	-82	224
Rates on land	15,503	17,010	15,011	16,540	19,249	20,910
Customs duty on coal exports	121,329	100,165	93,524	90,716	84,947	96,943
Customs duties on imports	1,152,016	1,131,817	1,363,041	1,538,064	1,799,488	2,059,706
Excise duties—						
Crude oil and LPG	340,000	469,000	1,227,000	2,270,200	3,107,900	3,163,300
Other	2,145,420	2,264,490	2,617,686	2,695,138	2,726,125	2,830,493
Sales tax	1,650,256	1,757,702	1,769,840	1,864,813	2,102,254	2,854,266
Primary production taxes	189,006	172,397	215,690	273,880	292,217	234,109
Broadcast station licences	1,200	1,508	1,843	2,184	2,484	2,913
Television station licences	6,028	10,469	12,724	15,946	19,005	28,020
Stevedoring industry charge	46,884	28,955	19,004	20,137	19,483	18,232
Payroll tax	18,644	19,583	13,142	12,373	13,184	15,986
Departure tax	–	–	11,966	18,384	18,720	36,090
Other taxes	15,496	19,107	18,487	18,765	19,619	26,460
Total taxes	*19,735,577*	*21,406,983*	*23,375,759*	*27,427,651*	*32,584,856*	*37,830,827*
Fees from regulatory services	15,264	21,526	22,730	48,658	51,795	65,294
Fines	3,121	3,838	4,229	4,228	4,207	7,296
Unfunded employee retirement contribution	51,680	61,087	63,129	67,124	72,922	86,346
Other current transfers n.e.c.	678	554	403	569	663	928
Total taxation	**19,806,320**	**21,493,988**	**23,466,250**	**27,548,230**	**32,714,443**	**37,990,691**

(*a*) From 1978–79 excludes taxes collected by Northern Territory Government authorities. (*b*) Includes Medibank levy payable from 1 October 1976 to 31 October 1978. (*c*) Excludes income tax paid by public enterprises: 1976–77, $21.4m; 1977–78, $23.1m; 1978–79, $34.6m; 1979–80, $46.5m; 1980–81, $55.8m; 1981–82, $43.1m.

Taxes on income

A description of the development of income taxes in Australia appeared in Year Book No. 35, page 926. With the advent of Uniform Taxation in 1942, the States withdrew from the income tax field. While the Commonwealth remains the sole government imposing taxes on income, tax sharing arrangements have been made under which State and Local Government bodies receive a share of Commonwealth revenue.

The laws dealing with the assessment and imposition of income tax at 30 June 1984 were—*Income Tax Assessment Act* 1936 (later referred to as 'the Assessment Act'); Acts declaring rates of tax—*Income Tax* (*Rates*) *Act* 1982, *Income Tax* (*Individuals*) *Act* 1983, *Income Tax* (*Companies, Corporate Unit Trusts and Superannuation Funds*) *Act* 1983, *Income Tax* (*Non-resident Companies Act*) 1978, *Income Tax* (*Dividends and Interest Withholding Tax*) *Act* 1974, *Income Tax* (*Drought Bonds*) *Act* 1969, *Income Tax* (*Withholding Tax Recoupment*) *Act* 1971, *Income Tax* (*Bearer Debentures*) *Act* 1971, *Income Tax* (*Mining Withholding Tax*) *Act* 1979, *Income Tax* (*Film Royalties*) *Act* 1977, *Income Tax (Diverted Income) Act* 1981 and Income Tax Regulations.

Both individuals and companies are liable for income tax. Private companies are subject to tax on certain undistributed income in addition to the primary income tax levied on all companies.

The operation of the Assessment Act is affected by other Acts, the more important of which are:

(a) *Taxation Administration Act* 1953, which provides for the administration of certain Acts relating to taxation and the screening for taxation purposes of applications for exchange control approval.

(b) *Income Tax* (*International Agreements*) *Act* 1953, which gives the force of law to agreements with other countries for the avoidance of double taxation. Australia has concluded comprehensive agreements for the avoidance of double taxation with the United Kingdom, the United States of America, Canada, New Zealand, Singapore, Japan, the Federal Republic of Germany, the Netherlands, France, Belgium, the Philippines, Switzerland, Malaysia, Sweden, Denmark, Ireland, Norway and the Republic of Korea. In addition, as at 30 June 1984, comprehensive agreements with Italy and Malta had been signed but had not entered into force. Limited agreements dealing with airline profits have been concluded with France, Italy, Greece and India.

(c) Taxation (Unpaid Company Tax) Assessment Act and related legislation.

(d) *The States (Tax Sharing and Health Grants) Act* 1981, which provides for the States and Northern Territory to receive a proportion of total Commonwealth tax collections.

(e) *Income Tax (Arrangements with the States) Act* 1978, which enables each State to increase or reduce personal income tax levied on residents of the State.

(f) *International Organizations* (*Privileges and Immunities*) *Act* 1963, and Regulations made under that Act, which provide for the exemption from income tax of certain income of international organizations and their officials.

(g) *Diplomatic Privileges and Immunities Act* 1967, which provides for the exemption from income tax of certain income of diplomatic representatives, their staff and families.

(h) *Consular Privileges and Immunities Act* 1972, which provides for the exemption from tax of certain income of consular representatives, their staff and families.

(i) *The Loan* (*Income Equalization Deposits*) *Act* 1976, which provides for the making of interest bearing income equalization deposits by primary producers with the Commissioner of Taxation.

(j) *Taxation (Interest on Overpayments) Act* 1983, which provides for the payment of interest on certain refunds of tax.

(k) *Loan* (*Drought Bonds*) *Act* 1969, which authorizes the issue of drought bonds and empowers the Commissioner of Taxation to declare when drought bonds have become redeemable.

(l) *Banking Act* 1959 and Regulations, under which certain exchange control applications are screened to prevent avoidance and evasion of Australian taxes.

(m) *The Crimes (Taxation Offences) Act* 1980, which established a number of criminal offences relating to the fraudulent evasion of income tax (and sales tax) by stripping companies or trusts of their capacity to pay.

(n) *Local Government (Personal Income Tax Sharing) Act* 1976, which provides for local government bodies in the States to receive a specified proportion of net personal income tax collections.

A resident individual is required to lodge a return of income when his total income from all sources in Australia is in excess of $4,595 in 1983–84. However, in the case of a resident minor i.e., a person under the age of 18 years at the end of the year of income, a return is to be lodged where income exceeds $416. Except in the case of a non-resident in receipt of a taxable Australian social security or repatriation pension, allowance or benefit (in which case the position is the same as for a resident), a non-resident individual is required to lodge a return of income where his total income (other than dividends or interest on which withholding tax has been paid) from all sources in Australia is $1 or more.

Non-profit companies with total incomes in excess of $416 and all other companies, partnerships and trusts deriving income are required to lodge returns of income each year.

Where applicable, income tax payable is assessed and assessment notices showing the amounts payable are issued during the year following the year of income. For individuals the approximate amount payable, however, has already been collected during the income year (from employees by deductions from salary or wages and from non-employees by a provisional tax). The amount shown on the assessment notice is therefore adjusted against the amount already paid, and any difference is either collected or refunded.

Taxes on income—individuals

Pay-as-you-earn-system

Salary and wage earners are subject to tax instalment deductions by employers according to prescribed scales which show the amount to be deducted according to income. Under the group employer scheme, the amount deducted is required to be regularly remitted to the Australian Taxation Office.

Not later than 14 July each year, employers are required to supply each employee with a group certificate showing the amount earned and deductions made during the year ended 30 June.

Under the tax stamp scheme for employers other than group employers, a tax deduction sheet in two parts is used. Every four weeks the employer purchases tax stamps for the amount of deductions made each pay day and attaches the tax stamps to the tax stamps sheet in the space provided and the tax checks (attached to the stamps) in the space provided on the tax check sheet. At the end of the year the employer gives the employee the tax stamp sheet and sends the tax check sheet to the Taxation Office. The tax stamp sheet is then used in the same way as a group certificate.

Individuals with taxable income other than salary or wages of $1,000 or more in 1983–84 may be required to pay provisional tax in respect of that income. Provisional tax is not generally charged, however, where tax instalment (PAYE) deductions made in the previous income year exceeded 95 per cent of the net tax payable for that year and provisional tax was not imposed previously. The provisional amount is intended as an approximation to the tax which will be assessed after the return of income for the current year has been lodged. In order to account for an expected rise in provisional incomes in 1983–84, provisional tax is calculated using 1983–84 rates of tax applied to 1982–83 income increased by 11 per cent. The provisional amount is intended as an approximation to the tax which will be assessed after the return of income for the current year has been lodged. The assessment notice shows the tax assessed on income from the previous year less any provisional tax already paid for that year and provisional tax payable for the current year. Taxpayers may apply to vary the amount of provisional tax imposed if his or her circumstances change during the year.

Prescribed payments system

As from 1 September 1983, a new system applies for collecting tax from certain payments for work or services not covered by the pay-as-you-earn system. In general terms, prescribed payments are payments made by contractors to sub-contractors operating within certain industries. The person who makes the payment (payer) is required to deduct the appropriate amount of tax from the payment and forward it to the Taxation Office. Where tax has been deducted from a payment, it does not represent the final tax liability of the payee, i.e., the person who receives the payment from the payer. However, a credit is allowed in the payee's income tax assessment in the same way as a credit is allowed for PAYE deductions and provisional tax.

Medicare levy

As from 1 February 1984, a Medicare levy is payable on the taxable income of Australian residents. Its introduction coincides with the implementation of the Medicare health scheme. The full year rate of the levy is 1% of taxable income. However, for 1983–84, the rate was calculated as 0.416% of taxable income (i.e. 5/12ths of the full year rate). The reduced rate payable for 1983–84 reflects the 1 February 1984 commencement date of the Medicare health scheme. The amount of levy payable is subject to a ceiling, i.e., the maximum amount payable. For 1983–84, the ceiling is $291.20.

Assessable income—individuals

Assessable income (from which deductions are made to arrive at taxable income) basically includes all receipts within the ordinary meaning of the word 'income', but excludes items of income that are specified as exempt. Assessable income specifically includes certain receipts such as casual profits arising from the sale of property held less than one year and profits arising from the sale of property acquired for the purpose of profit-making by sale regardless of the period the property is held before sale. The value to employees of allowances and benefits given by employers for services rendered is also specifically included in the assessable income of the employees. Receipts such as gifts (other than gratuities received by an employee in the course of employment), legacies, lottery wins and other receipts of capital generally do not form part of the assessable income.

Exemption from tax is provided by the Assessment Act in respect of a number of specified classes of income—for example, certain war pensions; invalid pensions; family allowances; income received from a scholarship, bursary or other educational allowance; the income of charitable institutions and public hospitals, certain foreign income where it has been taxed overseas, and income of certain Australian residents derived from personal services performed overseas.

Deductions

The taxable income to which the rates of tax are applied is arrived at by deducting from the assessable income any allowable deductions.

Deductions from assessable income are authorised for losses and outgoings incurred in gaining or producing assessable income or necessarily incurred in carrying on a business for that purpose except to the extent that they are of a capital, private or domestic nature, are incurred in gaining or producing exempt income, or are of the kinds that are specifically declared to be not deductible by provisions of the Assessment Act. In addition, certain other deductions are specifically authorised by the Assessment Act.

Deductions allowable include trading losses incurred in previous years, bad debts, certain home insulation expenditure incurred (or contracted for) before 24 August 1983, depreciation, gifts to various institutions and, in certain circumstances, rates and land taxes paid. Expenditure of a capital nature incurred under a contract entered into after 19 July 1982 in relation to mining operations, is eligible for deduction on a straight line basis by reference to the lesser of 10 years or the estimated life of the mine or oil field. Expenditure on mining plant may also be written off on that basis or, if the taxpayer chooses, by depreciation allowances. Exploration or prospecting expenses incurred by general (non-petroleum) mining companies are allowable as deductions against net assessable income from mining activities in the year in which the expenditure is incurred. Expenditure on exploration or prospecting for petroleum is immediately deductible against income from any source. Deductions are available for the cost of converting or replacing certain oil fired industrial equipment to other energy sources provided the expenditure is incurred before 1 July 1984 and the taxpayer contracted for the conversion or replacement, or commenced the conversion or replacement himself, before 20 May 1983.

A special loading applies to increase the depreciation rates on eligible plant. For plant contracted for on or after 1 May 1981 the loading is set at 18 per cent. New and second hand plant (excluding structural improvements and motor vehicles of a kind previously excluded from the 18 per cent loading) acquired under a contract entered into, or the construction of which by the taxpayer commenced, after 19 July 1982 is to be depreciated on a prime cost basis at a rate of either 20 per cent or 33⅓ per cent. The 20 per cent rate applies to eligible plant of a kind that under the previous system qualified for depreciation at a prime cost rate (including the 18 per cent loading) of 20 per cent or less, and the 33⅓ per cent applies where the previous prime cost rate was greater than 20 per cent. Where applicable, the investment allowance continues to be available and, in cases where the previous depreciation arrangements confer greater benefits than under the present scheme, a taxpayer is entitled to retain the previous arrangements.

Certain expenditure of a capital nature incurred before 24 August 1983 by primary producers in carrying out improvements to their land is deductible over 10 years. Capital expenditure on certain soil conservation operations is allowable in full in the income year in which the expenditure is incurred. Certain expenditure in connection with conserving or conveying water for use in a business of primary production is deductible in the year of expenditure. Expenditure incurred by a primary producer before 1 July 1986 in constructing stockyard or subdivisional fences where their construction is certified as being desirable for the eradication or control of bovine brucellosis or tuberculosis is also deductible in the year of expenditure.

Certain new items of plant and machinery acquired for use in a business of primary production are depreciable at a prime cost rate of 20 per cent, as are certain structural improvements for the storage of hay, grain or fodder. The rate applicable was increased to 33⅓ per cent for such property acquired or commenced to be constructed, during the period 20 July 1982 to 19 May 1983. After 19 May 1983, the rate reverted to 20 per cent.

Deductions may also be allowed in respect of expenditure on certain plant and machinery by way of an investment allowance. The rate of the allowance is 18 per cent of qualifying expenditure for plant contracted for after 30 April 1981.

Deductions are also allowable for the capital cost of connecting mains electricity to a property on which a business is carried on. A 100 per cent depreciation allowance is available for the cost of certain plant used in Australia exclusively to store fuel held for use in a business as fuel or as trading stock for disposal. Special concessions involving a deduction loading and income exemption are available for capital investment in the production of certain new Australian films.

Depreciation allowances in respect of new non-residential income-producing buildings are available at the rate of 2½ per cent per annum in respect of the construction cost of eligible buildings where construction of the buildings commenced after 19 July 1982.

Deductions are allowable for eligible capital subscriptions paid after 14 September 1983 to companies (known as MICs) that have been granted a licence under the *Management and Investment Companies Act* 1983. The deduction is allowable in the year of income in which payments are made on application for and allotment of shares, and on subsequent calls. In order to retain the full benefit of the deduction, the subscriber is required to retain ownership of the shares for a 4 year period commencing on the date on which the shares become fully paid-up or, in the case of shares that a subscriber disposes of when they are only partially paid-up, commencing on the last date on which a share subscription was paid.

Living-away-from-home allowance. Where an allowance is paid to an employee under any award, industrial agreement, etc.—

(a) if it is received in cash and does not exceed $7 per week, a deduction is allowable of the amount of the allowance, up to $5 per week;

(b) if it is received otherwise than in cash and exceeds a value of $2 per week but does not exceed a value of $5 per week, a deduction is allowable of the excess of that value over $2 per week.

In any other case the deduction allowable is the amount which the Commissioner deems reasonable but may not exceed the total amount received less $2 per week.

Subscriptions. When they are paid in respect of membership of any trade, business or professional association or union.

Gifts. Those of $2 and upwards made to specified funds, authorities and institutions including public benevolent institutions, approved research institutions for scientific research, building funds for schools conducted by non-profit organisations, certain approved voluntary overseas aid organisations, etc.

Superannuation contributions of eligible self-employed persons and employees not covered by funds to which any other person contributes for their benefit that are paid after 19 August 1980 to approved funds are deductible to a maximum $1,200 in any one year of income. Any excess of contributions over $1,200 falls for consideration under the superannuation provisions subject to concessional rebate (see page 507).

Rebates of Tax

From the gross amount of tax calculated by applying the relevant rate to the taxpayer's taxable income, a deduction is made for any rebates allowable to the taxpayer.

Dependant, housekeeper and sole parent rebates. A concessional rebate of the relevant amount specified below for each *dependant* is allowable to a resident taxpayer if, during the whole of the year of income, the taxpayer is the sole contributor to the dependant's maintenance and that dependant does not have a separate net income in excess of $282.

Dependant	*Maximum rebate 1983–84*
	$
Spouse or daughter-housekeeper—where there is a dependent child or student child	1,030
Spouse or daughter-housekeeper—where there is not a dependent child or student child	830
Parent or parent-in-law	749
Invalid relative	376

If a person in one or other of these dependant categories is a dependant during part only of the year of income (such a person residing with the taxpayer is ordinarily regarded as a dependant throughout the period of residence), the maximum rebate is proportionately reduced. Rebates for a parent, parent-in-law or invalid relative are allowable only in respect of residents of Australia.

Where a person has a separate net income in excess of $282 while a dependant of a taxpayer, the rebate otherwise allowable is reduced by $1 for every complete $4 by which the separate net income exceeds $282, irrespective of the period over which the person has derived the income. When two or more people contribute to the maintenance of a person who is a dependant of both of them, the rebate allowable is apportioned between the contributing taxpayers.

A concessional rebate is allowable to a resident taxpayer in respect of a *housekeeper* who, during the whole of the year of income, is wholly engaged in keeping house in Australia for the taxpayer and has the care of (*a*) a child or step-child of the taxpayer, less than 16 years of age; (*b*) an invalid relative in respect of whom the taxpayer is entitled to a rebate or any child under 16 years classed as a dependant for this purpose; or (*c*) the taxpayer's spouse if in receipt of an invalid pension under the *Social Security Act*. Where there is a dependent child or student, the maximum rebate for 1983-84, is $1,030, otherwise it is a maximum of $830. A child under 16 years referred to in (*b*) will be classed as a dependant where the taxpayer contributes to that child's maintenance and the child's separate net income is less than $1,786.

If these conditions apply for only part of the year, a proportionate rebate may be allowed. Where the taxpayer is married, a rebate may be allowable for a housekeeper if the housekeeper is engaged in caring for an invalid spouse (*see* (*c*) above) or the Commissioner is of the opinion that, because of special circumstances, it is just to allow a rebate. The rebate is not allowable in respect of any period during which the taxpayer is entitled to a deduction for a daughter-housekeeper.

A concessional rebate of $780 is allowable to a *sole parent* i.e., a resident single, widowed or divorced person who has the sole care of a child under 16 years of age or a student (up to 25 years of age, receiving full-time education at a school, college or university), whose separate net income is ordinarily less than $1,786. The sole parent rebate is not allowable where the taxpayer is entitled to a rebate for a housekeeper or daughter-housekeeper or is living in a de-facto relationship.

Concessional rebates

Resident taxpayers may be allowed a concessional rebate in respect of certain expenses listed below amounting in total to more than $2,000. The amount of the rebate for 1983–84 is 30 per cent of the excess of the total expenditure over $2,000, but the rebate cannot exceed the tax otherwise payable.

Medical, dental, optical, etc. expenses. Rebates are allowable in respect of medical, dental, optical and therapeutic treatment expenses paid by the taxpayer, less any amounts in respect of those expenses which are received or receivable by the taxpayer or any other person from a Government or friendly society or medical benefit fund. Included are amounts paid in respect of artificial limbs and eyes, hearing aids and medical and surgical appliances and the remuneration of an attendant of a person who is blind or permanently confined to a bed or invalid chair. Domiciliary nursing care benefits are to be disregarded in calculating the rebatable amount in respect of medical expenses.

Rebates in respect of the above medical, etc. expenses are allowable only for expenditure in respect of a resident taxpayer, spouse, children under 21 years of age or any other 'dependant' resident in Australia, but not a 'housekeeper'.

Funeral, burial or cremation expenses. Rebates are allowable only in respect of the taxpayer's spouse, children under 21 years of age or any other 'dependant', but not a 'housekeeper', provided the dependant was a resident of Australia at the time of death. The amount of expenses allowable in respect of any one dependant is limited to $100.

Adopted children. Legal expenses and court costs of the kind normally incurred by a taxpayer in adopting a child.

Payments of life, sickness and accident insurance premiums and payments to a Friendly Society, Superannuation, Sustentation or similar Fund. Amounts subject to rebate are limited to a total of $1,200 in respect of such payments made on behalf of the taxpayer, his spouse or children. In the case of self-employed and 'unsupported' employees contributions that are deductible, the excess over $1,200 not allowed as a deduction may be allowed as a rebate within the $1,200 limit on such rebatable expenditure. Where policies are taken out on or after 1 January 1973 or where the first premium of a policy was paid on or after that date, rebates for premiums of such policies are *not* allowable if the benefits, other than death benefits, are payable within a period of 10 years of commencement of risk. Where a policy taken out on or after 1 January 1973 is surrendered within 10 years of commencement, rebates or deductions allowed for premiums payable in the previous 5 years are disallowed unless the forfeiture or surrender is due to serious financial difficulties.

Education expenses. An amount not exceeding $250 is allowed in respect of each child of the taxpayer or 'dependant' under 25 years of age receiving full-time education. Education expenses include expenditure for recognised school uniforms, on school fees, board and accommodation, text books, stationery, equipment and fares.

Self-education expenses. These are allowable where they are paid by the taxpayer for or in connection with a course of education undertaken by him/her for the purpose of gaining qualifications for use in carrying on a profession, business or trade or in the course of employment. The maximum amount subject to rebate is $250.

Calls. One-third of the amount of calls paid by the taxpayer in the year of income on shares owned by him/her in a company carrying on as its principal business afforestation in Australia.

Rates and land taxes. These are allowable when they are paid by a taxpayer who is personally liable. The maximum amount rebatable is $300 and must be in respect of a sole or principal place of residence.

Other rebates

Zone allowance rebate. A separate rebate is allowable to resident taxpayers who have resided in Zone A or B (prescribed isolated areas) for more than one half of the income year. The rebates are as follows:

(a) Ordinary Zone A: A rebate equal to the sum of $216 and 50 per cent of rebates for dependants, as a sole parent or for a housekeeper;
(b) Ordinary Zone B: A rebate equal to the sum of $36 and 20 per cent of those rebates;
(c) Special Zone A: A rebate equal to the sum of $750 and 50 per cent of those rebates; and
(d) Special Zone B: A rebate equal to the sum of $750 and 20 per cent of those rebates.

The special zone rebate is available to a taxpayer residing or spending the required period in a zone area but at a place in excess of 250 kilometres by the shortest practicable surface route from the centre of a population centre of 2,500 or more (based on 1976 census data).

As from 1 May 1984, a remote area allowance is paid to certain social security and repatriation pensioners living in Zone A (including Special Zone A) and it is exempt from income tax. To ensure that the sum of the non-taxable remote area allowance and the income tax zone rebate received by a person in an income year does not exceed the amount which that person would receive if entitled to only one of the benefits, the allowance is to be deductible from the maximum claimable value of any income tax zone rebate to which the recipient would otherwise be entitled.

The rebates for dependants, as a sole parent or for a housekeeper that may be the subject of a percentage increment to the basic zone allowance, are:

		1983–84	
		$	
Sole parent		780	
Housekeeper	(*a*)	830	
Spouse, daughter-housekeeper	(*a*)	830	(*b*)
Parent or parent-in-law		749	
One child under 16 years, not being a student		376	
Each other child under 16 years, not being a student		282	
Student		376	
Invalid relative		376	

(*a*) Where there is a dependent child under 16 or a student child under 25, the maximum rebate will be $1,030. (*b*) Where one of these persons has a separate net income in excess of $282 while a dependant of a taxpayer, the amount to be taken into account is reduced by $1 for every complete $4 by which that income exceeds $282, irrespective of the period over which it was derived. Where two or more people contribute to the maintenance of a person who is a dependant of both of them, the amount to be taken into account is apportioned between the contributing taxpayers.

Amounts for a parent, parent-in-law or invalid relative are allowable only in respect of resident dependants.

'Child' or 'children' includes a legally adopted child, a step-child or ex-nuptial child of the taxpayer. 'Student' means a person less than 25 years of age who is receiving full-time education at a school, college or university.

Overseas service rebate. Separate rebates are also allowable to certain members of the Defence Force serving in prescribed overseas localities. Where the period of service is more than one-half of the year of income, the rebate is equal to the Ordinary Zone A rebate. Where the period is less than one-half of the year of income, a proportionate part of the Ordinary Zone A rebate is allowable.

Unused leave rebate. Where a taxpayer's taxable income exceeds $19,500 and includes lump sum payments in consequence of termination of employment or retirement for unused annual leave or unused long service leave attributable to service after 15 August 1978 or both, a rebate is allowable to limit the marginal rate on such payments to the standard rate of 30 per cent.

Lump sum superannuation and kindred payments rebate. Lump sum superannuation and kindred payments received after 30 June 1983, for services rendered after that date, are included in assessable income in full. Where a person is aged 55 or more, the first $50,000 of such lump sums is taxed at a rate no greater than 15 per cent and the remainder is taxed at 30 per cent. For such lump sums received by a person aged less than 55, a maximum rate of tax of 30 per cent applies. The part of a lump sum comprising a person's own contributions after 30 June 1983 for which no tax deduction has been allowed is not subject to tax. Special arrangements apply to bona fide redundancy payments, approved early retirement scheme payments and invalidity payments. Lump sums are also free of tax where they are transferred into another superannuation fund or an approved deposit fund or are used to purchase an annuity.

Capital subscription rebate. Section 160ACA of the Income Tax Assessment Act provides for a rebate of tax to shareholders in respect of capital subscribed to certain petroleum exploration and mining companies. The rebate allowable is 27 cents for each $1 of amounts paid on shares after 30 April 1981 by way of application and allotment moneys and calls which are applied by a company towards the paid-up value of its shares. The allowance of the rebate is conditional upon the company lodging a declaration satisfying the Commissioner that the share moneys will be, or have been, spent on outgoings for exploration for petroleum and the development of petroleum fields. It is also conditional upon the company forgoing any right to a deduction under Division 10AA for the expenditure.

Pensioner Rebate. A limited rebate is allowable for taxpayers in receipt of an Australian social security or repatriation pension on which Australian income tax is payable. The maximum rebate of $250 for 1983–84 means that no tax will be payable on taxable income up to $5,428. The rebate is gradually reduced where taxable income exceeds $5,428 until it fully shades out at a taxable income of $7,428 for 1983–84.

Home Loan Interest Rebate. A rebate was available in 1983–84 to home owners who first occupied a dwelling as their sole or principal residence in Australia on or after 1 July 1978 and on or before 30 September 1983. Taxpayers who contracted to acquire or build or commence to build, on or before 30 September 1983, were brought within the scheme even though they occupied the dwelling after 30 September 1983. (This transitional measure to extend entry into the scheme protects those first home buyers who are not eligible for assistance under a New Cash Subsidy Scheme for First Home Owners.)

Entitlement to a rebate after 30 September 1983 is subject to an income test. The income test applies in such a way that benefits under the scheme after 30 September 1983 will be available in full to taxpayers whose 'family incomes' in the 1982–83 income year are $24,300 or less, shading out proportionately for family incomes up to $27,900. No rebate is available after 30 September 1983 where a taxpayer's family income in 1982–83 was $27,900 or greater.

The rebate is 30 per cent of qualifying interest subject to an upper limit of $500 in the first full year of occupancy, reducing by $100 per year during the following four years. The upper limit is increased by $200 where the dwelling is also the home of a dependent child or dependent student child of the taxpayer.

Averaging rebate—see Income of Primary Producers.

Government loan interest rebate. Interest derived from bonds, etc., issued between 1 January 1940 and 31 October 1968 by the Commonwealth Government, or on certain State semi-government loans issued free of State income tax, is subject to a rebate of income tax of 10 cents for each $1 of interest received. The rebate does not apply to interest recieved from bonds, etc., issued on or after 1 November 1968.

Effective exemption from tax

For the income years 1972–73 to 1974–75 inclusive the income of a taxpayer without dependants was exempt from income tax if it did not exceed $1,040. In 1975–76 and 1976–77, after the application of the general concessional rebate of $540 and $610 respectively to resident taxpayers, the corresponding figures were $2,518 and $2,845. In 1977–78, with the composite tax scale applying, the figure was $3,402. For 1978–79 and 1979–80 no tax was payable unless taxable income exceeded $3,893 and for 1980–81 no tax was payable unless taxable income exceed $4,041 (except in the case of certain minors). For 1981–82 no tax was payable unless taxable income exceeded $4,195 (except in the case of certain minors). In 1982–83 (except for certain minors) no tax was payable unless taxable income exceeded $4,462 in the case of a resident taxpayer or $585 in the case of most non-resident taxpayers. For 1983–84 (except for certain minors) no tax is payable unless taxable income exceeds $4,595 in the case of a resident taxpayer; for most non-residents, tax is payable where taxable income is $1 or more. The effect of deductions or rebates for dependants was to exempt resident taxpayers up to the incomes shown in the following table.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM INCOME TAX

($)

	Taxpayer with—			
Income years ended June—	*No dependants*	*Wife*	*Wife and one child*	*Sole parent*
1978	3,402	5,335	5,335	4,761
1979	3,893	5,675	5,675	5,137
1980	3,893	5,698	5,698	5,153
1981	4,041	6,541	6,541	5,787
1982	4,195	6,788	6,788	6,007
1983	4,462	7,168	7,601	6,786
1984	4,595	7,361	8,028	7,195

Rates of tax—individuals

The rates of tax on taxable incomes derived by both resident and non-resident individuals during the year ending 30 June 1984 (or substituted accounting period) are set out below. As from 17 August 1982 the tax-free threshold was withdrawn from non-resident taxpayers, other than those in receipt of taxable Australian social security and repatriation pensions.

GENERAL RATES OF TAX—RESIDENT INDIVIDUALS 1983–84 FIMANCIAL YEAR, 1983–84 INCOME YEAR

Total taxable income		
Not less than—	*Not more than—*	*Tax at general rates on total taxable income*
$	$	$
0	4,595	Nil
4,595	19,500	Nil + 30c for each $1 in excess of 4,595
19,500	35,788	4,471.50 + 46c for each $1 in excess of 19,500
35,788	..	11,963.98 + 60c for each $1 in excess of 35,788

GENERAL RATES OF TAX—NON-RESIDENT INDIVIDUALS 1983–84 FINANCIAL YEAR, 1983–84 INCOME YEAR

Total taxable income		
Not less than—	*Not more than—*	*Tax at general rates on total taxable income*
$	$	$
0	19,500	30c for each $1
19,500	35,788	5,850 + 46c for each $1 in excess of 19,500
35,788	..	13,342.48 + 60c for each $1 in excess of 35,788

Rates of income tax for years prior to 1982–83 may be obtained by reference to previous Year Books as indicated in the table below.

	Published in Year Book	
Income Year	*Number*	*Page*
1954–55 to 1973–74	60	590
1974–75 and 1975–76	61	586
1976–77 and 1977–78	62	593
1978–79	63	529
1979–80	64	604
1980–81	65	567
1981–82	66	575

Income of Certain Minors

Special provisions in Division 6AA of the Assessment Act may apply to income, whether derived directly or through a trust, of a minor—a person who is under the age of 18 years at the end of the year of income. A minimum rate of tax equal to 46 per cent in 1983-84 is imposed on the eligible income of resident minors (subject to shading-in arrangements) where the income exceeds $416. For the 1983–84 year, tax is payable by a non-resident minor on all eligible taxable income. Where eligible income does not exceed $416, it is taxed at the rate of 30 per cent, except where the ordinary rate applicable to the eligible taxable income is greater. Subject to shading-in arrangements the eligible taxable income of a non-resident minor in excess of $416, is subject to a minimum rate of tax of 46 per cent.

Abnormal income

The taxable income, including abnormal receipts, of actors, artists, inventors, etc., is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Income of Primary Producers

A modified averaging system applied in 1983–84 and subsequent income years. Under the new arrangements taxpayers pay tax on taxable income from primary production at the average rate of tax (the rate of tax obtained by applying ordinary tax rates to the average of taxable incomes of the current year and, as a general rule, each of the previous four years in which the taxpayer was engaged in primary production) regardless of whether the application of the averaging system in a particular year is of benefit to the taxpayer in that year. An election is available for a primary producer to permanently opt out of the averging system, and to thereafter pay tax calculated at ordinary rates.

A special averaging rebate is allowed to be subtracted from ordinary tax where a primary producer's taxable income exceeds the average income. Complementary tax is payable when the taxpayer's average income is greater than his or her taxable income to bring the tax on primary production income up to the level of tax at average rates.

Income tax payable on specified incomes at general rates

The following table shows, for the income years 1978–79 to 1983–84, the actual income tax payable by resident taxpayers with various incomes and numbers of dependants.

COMMONWEALTH INCOME TAX PAYABLE ON SPECIFIED RESIDENT INDIVIDUAL INCOMES 1978–79 TO 1983–84 INCOME YEARS

($)

Net Income(a)	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
	TAXPAYER WITH NO DEPENDANTS					
$						
3,000	..	..	..	..	..	..
5,000	370.84	366.08	306.88	257.60	165.00	121.50
7,000	1,040.84	1,027.48	946.88	897.60	778.40	721.50
10,000	2,045.84	2,019.58	1,906.88	1,857.60	1,698.50	1,621.50
15,000	3,720.84	3,673.08	3,506.88	3,457.60	3,232.00	3,121.50
20,000	5,870.72	5,801.46	5,493.42	5,352.44	4,916.99	4,701.50
	TAXPAYER WITH DEPENDANT WIFE					
3,000	..	..	..	..	..	..
5,000	..	..	..	..	..	..
7,000	443.84	430.48	146.88	67.60	..	..
10,000	1,448.84	1,422.58	1,106.88	1,027.60	868.50	791.50
15,000	3,123.84	3,076.08	2,706.88	2,627.60	2,402.00	2,291.50
20,000	5,273.72	5,204.46	4,693.42	4,522.44	4,086.99	3,871.50

(*a*) Income remaining after allowing all deductions other than concessional deductions.

Income tax assessments—Individuals

The following tables show for the 1981–82 income year the number of taxpayers, taxable income, and net income tax assessed for individuals.

COMMONWEALTH INCOME TAX ASSESSMENTS(*a*): TAXABLE INDIVIDUALS BY GRADE OF TAXABLE INCOME

(Income derived in the year 1981–82)

Grade of taxable income	*Number of Taxpayers*			Net income(*b*)	Taxable income(*c*)	Net tax
	Males	*Females*	*Total*			
$ $				$'000	$'000	$'000
Under 4,000	2,329	2,103	4,432	7,635	7,619	1,452
4,000–4,999	115,983	199,991	315,974	1,485,137	1,458,017	36,461
	118,312	**202,094**	**320,406**	**1,492,772**	**1,465,636**	**37,913**
5,000–5,999	153,559	213,811	367,370	2,057,218	2,013,701	133,163
	271,871	**415,905**	**687,776**	**3,549,990**	**3,479,337**	**171,076**
6,000–6,999	145,104	190,864	335,968	2,233,188	2,182,749	220,297
	416,975	**606,769**	**1,023,744**	**5,783,178**	**5,662,086**	**391,373**
7,000–7,999	153,952	179,002	332,954	2,553,738	2,495,794	308,571
	570,927	**785,771**	**1,356,698**	**8,336,916**	**8,157,879**	**699,943**
8,000–8,999	152,472	167,468	319,940	2,784,425	2,718,672	394,103
	723,399	**953,239**	**1,676,638**	**11,121,341**	**10,876,551**	**1,094,047**
9,000–9,999	153,538	168,538	322,076	3,135,968	3,060,273	497,578
	876,937	**1,121,777**	**1,998,714**	**14,257,309**	**13,936,824**	**1,591,625**
10,000–10,999	166,922	175,124	342,046	3,681,190	3,594,195	633,464
	1,043,859	**1,296,901**	**2,340,760**	**17,938,498**	**17,531,019**	**2,225,083**
11,000–11,999	196,743	189,684	386,427	4,550,990	4,448,134	832,165
	1,240,602	**1,486,585**	**2,727,187**	**22,489,489**	**21,979,152**	**3,057,253**
12,000–12,999	224,879	176,995	401,874	5,137,639	5,022,691	979,658
	1,465,481	**1,663,580**	**3,129,061**	**27,627,128**	**27,001,843**	**4,036,911**
13,000–13,999	240,783	148,956	389,739	5,385,599	5,259,254	1,061,725
	1,706,264	**1,812,536**	**3,518,800**	**33,012,727**	**32,261,097**	**5,098,636**
14,000–14,999	242,983	115,442	358,425	5,325,989	5,194,249	1,079,394
	1,949,247	**1,927,978**	**3,877,225**	**38,338,716**	**37,455,346**	**6,178,031**
15,000–15,999	233,525	88,575	322,100	5,116,940	4,988,800	1,063,908
	2,182,772	**2,016,553**	**4,199,325**	**43,455,656**	**42,444,145**	**7,241,939**
16,000–16,999	218,252	69,825	288,077	4,871,699	4,749,967	1,036,480
	2,401,024	**2,086,378**	**4,487,402**	**48,327,355**	**47,194,113**	**8,278,418**
17,000–17,999	203,368	62,439	265,807	4,768,828	4,651,196	1,037,812
	2,604,392	**2,148,817**	**4,753,209**	**53,096,182**	**51,845,309**	**9,316,230**
18,000–18,999	177,326	46,900	224,226	4,251,439	4,144,957	954,536
	2,781,718	**2,195,717**	**4,977,435**	**57,347,621**	**55,990,266**	**10,270,766**
19,000–19,999	154,724	37,899	192,623	3,851,261	3,753,729	901,909
	2,936,442	**2,233,616**	**5,170,058**	**61,198,882**	**59,743,995**	**11,172,675**
20,000–21,999	244,860	50,188	295,048	6,338,212	6,176,475	1,564,081
	3,181,302	**2,283,804**	**5,465,106**	**67,537,094**	**65,920,470**	**12,736,756**
22,000–23,999	178,651	30,076	208,727	4,913,859	4,787,524	1,288,270
	3,359,953	**2,313,880**	**5,673,833**	**72,450,953**	**70,707,994**	**14,025,026**
24,000–25,999	124,035	17,909	141,944	3,635,404	3,540,257	1,000,472

For footnotes *see* end of Table.

COMMONWEALTH INCOME TAX ASSESSMENTS(*a*): TAXABLE INDIVIDUALS BY GRADE OF TAXABLE INCOME—*continued*

(Income derived in the year 1981-82)

Grade of taxable income	*Number of Taxpayers*			*Net income*(*b*)	*Taxable income*(*c*)	*Net tax*
	Males	*Females*	*Total*			
$ $				$'000	$'000	$'000
	3,483,988	**2,331,789**	**5,815,777**	**76,086,357**	**74,248,252**	**15,025,498**
26,000-27,999	86,939	11,719	98,658	2,730,312	2,658,272	783,295
	3,570,927	**2,343,508**	**5,914,435**	**78,816,669**	**76,906,524**	**15,808,793**
28,000-29,999	61,319	8,357	69,676	2,072,576	2,016,260	615,304
	3,632,246	**2,351,865**	**5,984,111**	**80,889,244**	**78,922,784**	**16,424,096**
30,000-34,999	87,519	13,617	101,136	3,352,234	3,258,070	1 044,624
	3,719,765	**2,365,482**	**6,085,247**	**84,241,478**	**82,180,853**	**17,468,721**
35,000-39,999	42,225	10,106	52,331	1,988,901	1,937,107	664,386
	3,761,990	**2,375,588**	**6,137,578**	**86,230,379**	**84,117,961**	**18,133,107**
40,000-49,999	30,011	5,266	35,277	1,598,787	1,552,147	590,445
	3,792,001	**2,380,854**	**6,172,855**	**87,829,166**	**85,670,108**	**18,723,552**
50,000-99,999	19,657	4,139	23,796	1,546,210	1,505,890	669,960
	3,811,658	**2,384,993**	**6,196,651**	**89,375,376**	**87,175,998**	**19,393,511**
100,000 and over	2,525	655	3,180	516,809	505,705	271,746
Total(*b*)	**3,814,183**	**2,385,648**	**6,199,831**	**89,892,185**	**87,681,703**	**19,665,257**

(*a*) Assessments in respect of 1981-82 income year issued during the period 1 July 1982 to 30 June 1983. (*b*) Net income is total assessable income less total deductions for expenses incurred in gaining assessable income. (*c*) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

The above table excludes details of assessments raised to trustees. However, the following table includes all 1981-82 income year assessments issued during the period 1 July 1982 to 30 June 1983.

COMMONWEALTH INCOME TAX ASSESSMENTS: TAXABLE INDIVIDUALS BY STATE OR TERRITORY OF RESIDENCE

(Income derived in the year 1981-82)

State or Territory of Residence	*Number of taxpayers*	*Taxable income*(*a*)	*Net tax*
		$'000	$'000
New South Wales	2,186,014	31,644,449	7,261,714
Victoria	1,703,174	23,877,270	5,377,983
Queensland	911,083	12,521,669	2,756,590
South Australia	553,476	7,382,512	1,579,543
Western Australia	555,408	7,766,815	1,709,957
Tasmania	169,500	2,318,346	503,081
Northern Territory(*b*)	43,575	698,670	152,404
Australian Capital Territory	103,588	1,737,986	437,479
Australia	**6,225,818**	**87,947,718**	**19,778,751**

(*a*) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (*b*) Assessments issued from South Australian Office.

Partnerships and trusts

Income tax returns are required to be lodged on behalf of partnerships and trusts which, as partnerships and trusts, are not required to pay tax except in certain specified circumstances when they may be assessed as individuals. In general, the net income remaining after allowing all deductions including expenditure incurred in gaining the income is distributed to the partners or beneficiaries concerned and is assessable for tax in the respective individual returns.

The following tables show for the 1980–81 and 1981–82 income years numbers, total business income and net income of partnerships and trusts. Greater detail is published in the statistical supplement to the annual report of the Commissioner of Taxation and in the report itself.

PARTNERSHIPS AND TRUSTS—INCOME YEAR 1980–81 (*a*)

Item		*Partnerships*	*Trusts*	*Total*
Number		517,766	219,429	737,195
Total business income	$'000	21,242,985	7,523,546	28,766,531
Net income(b)	$'000	6,128,248	2,237,391	8,365,639

(*a*) Assessments issued during the period 1 July 1981 to 30 September 1982. (*b*) Total net income adjusted by subtraction of loss.

PARTNERSHIPS AND TRUSTS—INCOME YEAR 1981–82 (*a*)

Item		*Partnerships*	*Trusts*	*Total*
Number		521,863	254,505	776,368
Total business income	$'000	22,772,920	11,258,410	34,031,330
Net income(b)	$'000	5,698,503	2,739,891	8,438,394

(*a*) Assessments issued during the period 1 July 1982 to 30 September 1983. (*b*) Total net income adjusted by subtraction of loss.

Taxes on income—companies

For taxation purposes companies are divided into two main groups—public and private. A company is regarded as a public company if, broadly, its shares are on the official list of a stock exchange—in Australia or elsewhere and it is not capable of being controlled by relatively few individuals—or it is a co-operative, non-profit or mutual life insurance company or a Government body established for public purposes. A subsidiary of a public company is itself classed as a public company, subject to its meeting certain tests specified in the Income Tax Assessment Act. A company that is not a 'public' company is classified as a 'private' company. Both public and private companies pay primary tax assessed on a taxable income ascertained on the same principles as for individuals.

Rates of tax. The rates of primary income tax for all companies and additional tax for private companies applicable to income years 1970–71 to 1982–83 are shown in the following table.

RATES OF INCOME TAX: COMPANIES, 1970–71 TO 1981–82 INCOME YEARS

(Cents per $)

	Resident private company			*Resident public company(a)*		*Non resident company*			
	On taxable income		*Additional tax on undistributed income*	*On taxable income*		*On dividends income*		*On other income*	
Income years ended 30 June	*Up to $10,000*	*On remainder*		*Up to $10,000*	*On remainder*	*Up to $10,000*	*On remainder*	*Up to $10,000*	*On remainder*
1971 and 1972	37.5	42.5	50	47.5	47.5	42.5	47.5	47.5	47.5
1973	45.0	45.0	50	47.5	47.5	47.5	47.5	47.5	47.5
1974	45.0	45.0	50	45.0	45.0	45.0	45.0	45.0	45.0
1975 and 1976	42.5	42.5	50	42.5	42.5	42.5	42.5	42.5	42.5
1977 1983	46.0	46.0	50	46.0	46.0	46.0	46.0	46.0	46.0

(*a*) Excludes co-operative, non-profit and life insurance companies.

For the income year ended 30 June 1974 the rate for companies other than friendly society dispensaries was 45 per cent, except that for the first $10,000 of taxable income of co-operative and non-profit companies (other than friendly society dispensaries) the rate was 42.5 per cent. The rate for friendly society dispensaries was 37.5 per cent.

For the income years ended 30 June 1975 and 1976 the rate for companies other than friendly society dispensaries was 42.5 per cent and for friendly society dispensaries it was 37.5 per cent. For the income years ended 30 June 1977 to 1982 the rates were 46 per cent and 41 per cent respectively. Commencing with incomes derived during the 1982-83 financial year, friendly society dispensaries are taxed in the same way as other non-profit companies.

A non-profit company is not liable to income tax unless the taxable income exceeds $416. Where the taxable income of a non-profit company does not exceed $2,542, the tax payable by the company is limited to 55 per cent of the amount by which the taxable income exceeds $416 less any rebate or credit to which the company is entitled. Other companies are assessed for income tax if the taxable income is $1 or more.

Non-resident companies are also liable to additional tax at the rate of 5 per cent of the company's reduced taxable income. Reduced taxable income means the amount remaining after deducting from taxable income net dividends included in assessable income and certain amounts relating to overseas ships, film royalties, insurance premiums and reinsurance income.

Details in respect of company income tax assessments for the 1980–81 income year are shown in the following table.

COMMONWEALTH INCOME TAX ASSESSMENTS: RESIDENT AND NON-RESIDENT COMPANIES BY GRADE OF INCOME AND OFFICE OF ASSESSMENT

(Income derived in the year 1980–81)

Grades of taxable income(a) ($) and office of assessment	*Taxable*			*Non-taxable*		
	Companies	*Taxable income (a)*	*Net income tax assessed(b)*	*Companies*	*Taxable income (a) (c)*	*Loss(d)*
	No.	$'000	$'000	No.	$'000	$'000
Loss for year	–	–	–	78,039	–	1,337,503
Nil	–	–	–	56,927	–	–
1– 1,999	32,780	16,359	7,065	3,646	2,635	–
2,000– 9,999	18,322	94,298	39,012	4,208	22,238	–
10,000– 19,999	8,589	122,801	49,982	1,838	26,224	–
20,000– 39,999	7,554	215,701	87,669	1,331	37,393	–
40,000– 99,999	7,188	453,251	185,927	842	51,725	–
100,000– 199,999	3,401	478,925	198,816	286	39,954	–
200,000– 399,999	2,137	602,857	248,763	159	44,120	–
400,000– 999,999	1,669	1,046,505	415,749	107	62,326	–
1,000,000–1,999,999	755	1,057,161	400,776	49	64,825	–
2,000,000 and over	988	10,482,447	3,530,021	53	465,952	–
Total	**83,383**	**14,570,306**	**5,163,779**	**147,485**	**817,391**	**1,337,503**
New South Wales	41,801	4,999,470	1,705,882	71,049	434,376	648,211
Victoria	18,976	6,778,028	2,355,023	33,394	276,216	391,505
Queensland	8,117	1,595,266	643,798	11,329	28,494	86,190
South Australia	6,474	499,284	187,829	14,252	32,660	83,318
Western Australia	4,703	531,282	214,554	10,296	27,296	75,411
Tasmania	1,183	87,355	33,630	2,659	4,755	29,418
Northern Territory	483	17,269	7,665	907	549	10,037
Australian Capital Territory	1,646	62,352	15,398	3,599	13,045	13,413
Total	**83,383**	**14,570,306**	**5,163,779**	**147,485**	**817,391**	**1,337,503**

(*a*) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (*b*) Excludes additional tax on the undistributed income of private companies. (*c*) Net tax assessed is nil because of rebates. (*d*) Not included in the figures shown for taxable income.

Yield of income taxes

Income taxes collected. The following table shows the net amounts of taxes collected and the proportions of the several components over recent years.

COMMONWEALTH INCOME TAXES COLLECTED: COLLECTION YEARS 1977–78 TO 1982–83

Source of income tax	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
			NET AMOUNTS COLLECTED ($'000)			
Individuals—						
Instalments—salaries and wages	9,638,786	10,397,606	12,160,308	14,120,691	17,417,317	18,840,314
Other payments	2,490,216	2,406,212	2,879,787	3,422,561	3,806,998	4,126,459
Companies	3,095,321	3,036,520	3,406,479	4,694,691	5,052,697	4,828,547
Withholding tax	117,852	114,069	141,130	160,965	205,098	258,985
Total	**15,342,175**	**15,954,407**	**18,587,704**	**22,398,908**	**26,482,110**	**28,054,305**
			PERCENTAGES			
Individuals—						
Instalments—salaries and wages	62.83	65.17	65.42	63.04	65.77	67.16
Other payments	16.23	15.08	15.49	15.28	14.38	14.71
Companies	20.18	19.03	18.33	20.96	19.08	17.2
Withholding tax	0.76	0.72	0.76	0.72	0.77	0.92
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Refunds of revenue. Income tax collections, as previously shown are net amounts after refunds of revenue made in the course of the year. Refunds are of two types: those charged to special appropriations under authority of the Income Tax Assessment Act and those charged to special appropriations under authority of the Audit Act. Income tax instalment refunds, by far the greatest part of income tax refunds, are made when the instalments deducted during the year exceed the tax assessed on incomes for that year. Refunds made from special appropriations under section 37A of the Audit Act include refunds of moneys paid to the revenue in error, refunds of tax overpaid, refunds due to the amendment of assessments, etc. Refunds of income tax to individuals and superannuation funds during the collection years 1976–77 to 1981–82 were: 1976–77, $1,501,555,000; 1977–78, $1,218,225,000; 1978–79, $1,407,257,000; 1979–80, $1,478,387,000; 1980–81, $1,560,519,000; 1981–82, $1,850,765,000; and 1982–83, $2,528,477,000.

Estate duty

Prior to 1 July 1979 estate duty was levied under the *Estate Duty Assessment Act* 1914 and was assessed on the net value of the estate less a statutory exemption. In respect of estates of persons who died after 21 November 1977 no duty was payable on that part of the estate which passed to or for the benefit of the deceased persons' widow or widower, children, grandchildren, parents or grandparents. Duty is not payable on estates of any person dying on or after 1 July 1979. For estates of persons who died before 1 July 1979, where no part of the estate passed to the relatives mentioned above, duty was payable on the net value less statutory exemption as follows:

-for qualifying estates of deceased primary producers—$24,000
-for other estates—$20,000
decreasing by $2 for every $8 by which the value of the estate exceeds $24,000 or $20,000 as the case may be.

Additional information concerning a rural property rebate and higher exemption levels for primary producers, special exemptions for defence personnel and a quick succession rebate is given in Year Book No. 63, page 534.

The rates of duty remained unchanged from1941 and increased as the value of the estate for duty increased, as follows: not exceeding $20,000, 3 per cent; $20,001 to $40,000, 3 per cent to 6 per cent; $40,001 to $240,000, 6 per cent to 26 per cent; $240,001 to $1,000,000, 26 per cent to 27.9 per cent; $1,000,000 or more, 27.9 per cent.

Particulars of the number and value of dutiable estates and duty assessed for recent assessment years are given in the following table.

COMMONWEALTH ESTATE DUTY ASSESSMENTS

		1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Estates	No.	9,828	6,449	1,767	218	110
Gross value as assessed	$'000	980,304	n.a.	n.a.	n.a.	n.a.
Deductions(*a*)	"	268,164	n.a.	n.a.	n.a.	n.a.
Statutory exemptions	"	175,141	n.a.	n.a.	n.a.	n.a.
Dutiable value	"	536,999	n.a.	n.a.	n.a.	n.a.
Net duty assessed	"	76,301	41,434	10,434	1,984	1,907
Average dutiable value	$	54,640	n.a.	n.a.	n.a.	n.a.
Average duty assessed per estate	$	7,764	6,425	5,905	9,100	17,336

(*a*) Debts, Exempt Estate and State Probate Succession Duties.

Gift duty

Prior to 1 July 1979 the *Gift Duty Act* 1941 and the *Gift Duty Assessment Act* 1941 imposed a gift duty on gifts which were defined as dispositions of property made otherwise than by will, without adequate consideration in money or money's worth. Both the donor and the donee were liable to furnish a return, and both were jointly and severally liable for payment of the duty. However, if a return was furnished by the donor, the donee is relieved of this obligation. Under the *Gift Duty Assessment Act* 1978, gifts to the donor's spouse, children, grandchildren, parents or grandparents made after 21 November 1977 were not subject to duty. Gift duty is not levied on any gifts made after 1 July 1979.

Certain exemptions from duty were provided, the more important being: payments to an employees' superannuation or like fund; retiring allowances or gratuities granted to employees; gifts to organisations not carried on for the profit of any individual; gifts to the Commonwealth Government or a State; and small gifts not exceeding $100.

The rate of gift duty applicable to any particular gifts was fixed by reference to the total value of all gifts made by the same donor within the period of eighteen months before and eighteen months after the time of making that gift. Where the total value of all gifts as defined did not exceed $10,000 no duty was payable. The rates of duty that applied to 30 June 1979 were (*a*) $10,001 to $20,000, 3 per cent provided that the gift duty payable did not exceed one half of the amount by which the gift exceeded $10,000 or a proportionate amount where more than one gift is involved; (*b*) $20,001 to $40,000, 3 per cent to 6 per cent; (*c*) $40,001 to $240,000, 6 per cent to 26 per cent; (*d*) $240,001 to $1,000,000 and over, 26 per cent to 27.9 per cent.

Particulars of the number of gift duty assessments, value of gifts as assessed and duty assessed for recent assessment years are given in the following table.

COMMONWEALTH GIFT DUTY ASSESSMENTS

		1977–78	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*
Assessments	No.	4,352	995	875	233	27	108
Value as assessed	$'000	103,058	95,738	n.a.	n.a.	n.a.	n.a.
Duty assessed	"	5,934	22,032	4,985	311	150	452

Customs duties

A description of the Australian Customs Tariff System is given in Chapter 24, Foreign Transactions. Details of duties collected on the import of commodities classified in accordance with the 'Brussels Nomenclature' are given in the following table.

GROSS CUSTOMS DUTIES ON IMPORTS ACCORDING TO BRUSSELS TARIFF DIVISIONS

($'000)

Brussels Tariff Division	*Source of receipts*	*1981–82*	*1982–83*	*1983–84*
1	Live animals; animal products	1,379	1,409	1,708
2	Vegetable products	3,938	3,092	5,603
3	Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes	2,790	3,234	3,124
4	Prepared foodstuffs; beverages, spirits and vinegar; tobacco	271,806	287,460	301,807
5	Mineral products	4,207	5,743	18,798
6	Products of the chemical industry and allied industries	59,301	59,665	71,607

GROSS CUSTOMS DUTIES ON IMPORTS ACCORDING TO BRUSSELS TARIFF DIVISIONS—*continued*

($'000)

Brussels Tariff Division	*Source of receipts*	*1981–82*	*1982–83*	*1983–84*
7	Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof; rubber, synthetic rubbers, factice and articles thereof	118,672	111,097	138,611
8	Raw hides and skins, leather, furskins and articles thereof; saddlery and harness; travel goods, handbags and similar containers; articles of gut (other than silkworm gut) . .	17,474	14,839	19,680
9	Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto and of other plaiting materials; basketware and wickerwork	23,853	20,464	24,184
10	Paper-making material; paper and paperboard and articles thereof	46,671	48,716	60,378
11	Textiles and textile articles	248,012	236,610	271,460
12	Footwear, headgear, umbrellas, sunshades, whips, riding-crops and parts therefor; prepared feathers and articles made therewith; artificial flowers; articles of human hair; fans	53,876	60,339	76,962
13	Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products; glass and glassware	45,206	40,333	45,669
14	Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin	11,977	10,700	11,151
15	Base metals and articles of base metal	128,529	119,385	120,495
16	Machinery and mechanical appliances; electrical equipment; parts therefor	472,496	439,312	477,796
17	Vehicles, aircraft, and parts therefor; vessels and certain associated transport equipment	467,781	465,701	571,183
18	Optical, photographic, cinematographic measuring, checking, precision, medical and surgical instruments and apparatus; clocks and watches, musical instruments; sound recorders and reproducers; television image and sound recorders and reproducers, magnetic; parts therefor	46,777	62,613	75,662
19	Arms and ammunition; parts therefor	859	675	736
20	Miscellaneous manufactured articles	73,029	72,556	81,639
21	Works of art, collectors' pieces and antiques	3,751	1,990	3,217
22	Primage	2,336	90	1
	Total customs duties and primage	**2,104,720**	**2,066,023**	**2,381,468**

The *net* receipts of custom duties into consolidated revenue fund for these years are 1981–82, $2,025,891,000; 1982–83, $1,986,033,000; and 1983–84, $2,298,768,000.

Customs duties on imports as recorded in the Financial Statements prepared by the Minister for Finance for these years are: 1981–82, $2,059,706,249; 1982–83, $2,035,662,743; and 1983–84, $2,328,996,429.

Excise duties

Details of duties collected in relation to the production of specific commodities are given in the following table:

COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF GROSS REVENUE
($'000)

Source of revenue	*1981–82*	*1982–83*	*1983–84*
Beer	1,005,866	1,090,761	1,155,200
Spirits, including liqueurs, etc.	119,606	112,649	116,335
Tobacco (manufactured), snuff	19,737	22,328	28,860
Cigars and cigarettes	706,883	773,711	829,541
Aviation gasoline—for use in aircraft	5,236	4,683	8,091
Aviation gasoline—other	—	873	—
Other gasoline	776,914	897,421	1,315,770
Aviation turbine kerosene	50,088	48,016	77,377
Kerosene, n.s.a; heating, fuel oil	84	52	33,106
Automotive, industrial and marine diesel fuel	130,747	412,650	691,022
Gasoline—commercial motor spirit/ethanol blends	21	1	—
Playing cards	86	n.p.	—
Cigarette tubes, paper and papers	695	n.p.	—
Matches	1,365	n.p.	—
Petroleum and liquid petroleum gas (excise item 17)	3,274,043	3,518,000	3,686,527
Coal	13,012	23,599	25,130
Other and undistributed excise revenue	85	1,861	349
Total Gross Excise Duties	*6,104,467*	*6,906,605*	*7,967,306*
Total Gross Customs, Primage and Excise Duties	**8,209,187**	**8,972,628**	**10,348,774**
Total Customs, Primage and Excise Refunds and Drawbacks	82,820	99,947	284,345

Statistics of the value of duty included in the price of petroleum products purchased by Commonwealth Government departments and subsequently credited to those departments by the Department of Finance are not available. The *net* receipts into consolidated revenue fund for these years are: $6,100,476,000; 1981-82, $6,886,648,000; and 1983-84, $7,927,276,000. The quantities of commodities on which excise duty was paid are given in chapter 24, Foreign Transactions, page 571. Commonwealth excise received, as recorded in the Financial Statement prepared by the Minister for Finance during these years, are: 1981-82, $5,993,155,448; 1982-83, $6,806,654,140; and 1983-84, $7,733,367,606.

Primary production taxes and charges

The following section shows rates of charges and levies on primary production as at 30 June 1984. Further information is given in Chapter 13, Agricultural Industries. Expenditure on research funded from industry levies is usually matched dollar for dollar by the Commonwealth Government.

Export Inspection Charges. A charge is imposed on products exported from Australia, or in certain cases for which an export permit has been issued. The Live-stock Slaughter—Export Inspection Charge is imposed on live-stock slaughtered at export works. The aim of imposing these charges is to recoup about half of the cost of providing export inspection services. The charges imposed are as follows:

Class of live-stock	*Rate of Charge per head*
	$
Cattle where the dressed weight of each carcase exceeds 90 kilograms	5.40
Cattle where the dressed weight of each carcase exceeds 40 kilograms but does not exceed 90 kilograms	1.80
Cattle where the dressed weight of each carcase does not exceed 40 kilograms	0.54
Sheep	0.54
Goats	0.54
Pigs	1.80
Horses, donkeys and mules	5.40

Animal Export Inspection Charges. Export inspection charges for animals were introduced on 1 July 1983. Charges are made under the *Quarantine Act* 1908 to recover a proportion of the cost to the Commonwealth of inspection of animals for export for which a certificate of health is issued. Charges, which vary according to the type of animal exported, made by Ministerial Determination under the *Quarantine Act* 1908 and which are published in the Commonwealth Gazette.

Dairy Products—Export Inspection Charge. Under the *Dairy Products (Export Inspection Charge) Act* 1982. The rates are:

Category	*Rate per tonne*
	$
Butter packed in bulk or pat form	2.05
Butter packed otherwise than in bulk or pat form	0.82
Butterfat products other than butter	1.22
Cheese packed in bulk	2.35
Cheese packed otherwise than in bulk	2.35
Concentrated, condensed and dried milk	0.96
All other dairy products	3.50

Dried Fruit—Export Inspection Charge. Under the *Dried Fruit (Export Inspection Charge) Act* 1981, a charge is imposed on all dried fruit exported from Australia to recoup about half the cost of export inspection incurred by the Commonwealth Government. The operative charge is $6.50 per tonne.

Eggs—Export Inspection Charge. Imposed under the *Eggs (Export Inspection Charge) Act* 1982. The rates are $10.00 per 1,000 dozen eggs in shell and $16.00 per tonne of eggs other than in shell.

Fish—Export Inspection Charge. Under the *Fish (Export Inspection Charge) Act* 1981, a charge is imposed on fish for which an export permit has been issued. The charges are:

- Rock lobster—5.1 cents per kilogram
- All other shellfish except oysters, squid, cuttlefish and octopus—3.6 cents per kilogram
- All other fish except oysters in the shell or half shell—1.00 cents per kilogram
- Oysters in the shell or half shell—10.3 cents per dozen
- Oysters not in shell—3.5 cents per kilogram
- Squid, cuttlefish and octopus—1.9 cents per kilogram.

Grain Export Inspection Charge. Under the *Grain (Export Inspection Charge) Act* 1979 imposed on exports of wheat, oats, barley and sorghum. The charge is 16.3c per tonne on bulk grain, 19.0c per tonne bagged grain and 73c per tonne for grain in containers.

Live-stock Slaughter—Export Inspection Charge. Charge for the inspection of live animals for export. Imposed by the Quarantine (Animals) Regulations under the *Quarantine Act* 1968. Overall responsibility for the administration of this legislation lies with the Commonwealth Department of Health.

Other charges

Export Inspection—Overtime Recoveries—Meat. Under the *Export Control Act* 1982, a charge at the rate prescribed in the Meat Orders is imposed on export meat-works to recover fully the cost of providing export meat inspection services outside normal hours.

Export Inspection Charge—Overtime Recoveries—Products Other than Meat. Fees are levied to recover the cost of providing export inspection, outside normal hours, for a number of products including field and horticultural crops, fish and dairy products. The fees are prescribed by the Export Control (General) Regulations made under the *Export Control Act* 1982.

Fishing Licences and Charges. Under the *Fisheries Act* 1952 and the *Continental Shelf (Living Natural Resources) Act* 1968, domestic and foreign boats and crews may be licensed to fish in the Australian Fishing Zone. Other charges such as access fees for foreign countries are also levied under the Fisheries Act. The rate of licence fees is set out in the Fisheries Regulations and Continental Shelf (Living Natural Resources) Regulations.

Export Inspection Charges—Miscellaneous. By arrangement, Commonwealth inspectors are provided to (i) abattoirs that are not registered export establishments to inspect meat for domestic consumption, (ii) State Dried Fruit Boards to inspect dried fruit for domestic use, and to (iii) Australian Wheat Board for the issue of quality certificates.

The inspection charge in those cases is arrived at by agreement between the parties concerned.

Wool Inspection Fees. Under the *Wool Industry Act* 1972, fees are imposed on the inspection of wool to recoup about half the cost of operating the Australian Wool Measurement Standards

Authority. A fee for registering a wool sampling site is set at $100 and is payable once only. The fee for providing pre-sale test certificates in respect of samples drawn at registered sites is currently 62 cents per certificate.

Research, Promotion, Stabilisation and Equalisation Levies and Charges

Apple and Pear Levy. The *Apple and Pear Levy Act* 1976 imposes a levy on the production and sale of apples and pears in Australia excluding fruit sent for export and pears used in the production of dried fruit or delivered for the manufacture of canned fruit. The rates of the levy are: fresh market 11 cents per box; juicing $1.10 per tonne; processing $2.20 per tonne.

The *Apple and Pear Export Charge Act* 1976 provides for the imposition of a charge on apples and pears exported from Australia. The rate of charge is 9 cents per box.

Monies collected from both the levy and the export charge are used to fund the operations of the Australian Apple and Pear Corporation.

Barley Research Levy. The *Barley Research Levy Act* 1980 imposes a levy on barley delivered for sale. The levy is disbursed for research by State barley research committees. The operative rate of levy is 30 cents per tonne.

Canned Fruits Levy. The *Canned Fruits Levy Act* 1979 imposes a levy on the production of canned fruits in Australia.

The operative rates are:

Containers not exceeding 150 grams—1.375 cents/doz. containers.

Containers exceeding 150 grams but not exceeding 320 grams—2.75 cents/doz. containers.

Containers exceeding 320 grams but not exceeding 490 grams—5.5 cents/doz. containers.

Containers exceeding 490 grams but not exceeding 680 grams—8.25 cents/doz. containers.

Containers exceeding 680 grams—11.0 cents/doz. containers plus 6.6 cents/doz. containers for each 450 grams by which the gross weight of the container exceeds 900 grams.

The funds raised are used to finance the operation of the Australian Canned Fruits Corporation.

Cotton Research Levy. Under the *Cotton Levy Act* 1982 a levy is imposed on the production of cotton. The levy is used to fund research programs. The operative rate of levy is to be $1 per 225 kg of raw cotton.

Wool Tax. The *Wool Tax Acts* 1964 (Nos 1 to 5). As amended, impose a levy of 8 per cent on the gross value of shorn wool sold of which 5 per cent is levied for the market support activities of the Australian Wool Corporation and 3 per cent to provide the growers' contribution towards wool research (0.5 per cent) and promotion (2.5 per cent).

Dairy Industry Stabilisation Levy. The Dairy Industry Stabilisation Levy Act 1977 imposes a levy on the production of butter, butteroil, ghee, various milk powders, casein, caseinates and certain varieties of cheese. The levy is not collected on production which is exported. Levies collected on production which is sold on the domestic market are distributed (after deduction of certain costs) by the Australian Dairy Corporation as an equalisation payment on all sales of the product, whether on the domestic or export market. The rate of levy is fixed at the difference between the domestic value for levy purposes determined by the Minister for Primary Industry from time to time and the assessed average export price for the period. The purpose of the levy is to distribute assistance raised through the levy on domestic sales across all production and has the effect of providing producers with an averaged return that is above export parity.

Dairying Research and Promotion Levy. The Dairying Industry Research and Promotion Levy Act 1972 provides for the imposition of a levy on all milk produced and sold in Australia with the levy payable by dairy farmers, either on a whole milk or butterfat basis. The levy imposed is made up of three components; one to finance the administration and overseas sales promotion activities of the Australia Dairy Corporation (ADC), one to finance the domestic promotion activities of the ADC and one as the industry's contribution to the research programme expenditure recommended by the Australian Dairying Research Committee. The Dairying Industry Research and Promotion Levy Regulations prescribe levies of either 24 cents per 100 litres of whole milk or 600 cents per 100 kilograms of butterfat.

Dried Fruits Levy. The *Dried Fruits Act* 1971 imposes a levy on dried fruits of a season received for packing in order to fund industry research programmes. The operative rates of levy are for dried vine fruits $1.00 per tonne, of dried tree fruits $5.00 per tonne.

Dried Fruits Export Charges. The *Dried Fruits Export Charges Act* 1924 imposes a levy of $10.00 per tonne on the export of dried currants, sultanas and raisins. The funds are used to finance the Australian Dried Fruits Corporation.

Dried Vine Fruits Equalisation Levy. The *Dried Vine Fruits Equalisation Levy Act* 1978 imposes a levy on domestic sales of dried vine fruit which is equal to the difference between the assessed returns per tonne from the domestic market and the assessed average returns per tonne from export. The purpose of the levy is to facilitate the equalisation of returns to producers from all markets. Because of the buoyant nature of the export market for dried vine fruit, no levies applied in either the 1979, 1980 or 1981 seasons. Levies have applied in each succeeding season with the 1984 season rate set for sultanas set at $860/tonne. Raisins and currents were exempted from levy for the 1984 season due to sub-minimum production levels and low export availability respectively.

Honey Export Charge. The *Honey Export Charge Act* 1973 imposes a charge of 0.75 cents per kilogram on honey exports.

The funds are used to finance the operations of the Australian Honey Board and provide the industry's contribution to research.

Honey Levy. The *Honey Levy Acts* (Nos 1 & 2) 1962 impose a levy of 2.45 cents per kilogram on honey sold for domestic consumption.

Livestock Export Charge. The *Livestock Export Charge Act* 1977 imposes charges which apply to all cattle, buffaloes, sheep, lambs and goats exported live from Australia. The funds are allocated to the Australian Meat and Livestock Corporation (AMLC), the Australian Meat Research Committee (AMRC) and for disease eradication.

The charges are:

	Cents/Head			
	AMLC	*AMRC*	*Disease eradication*	*Total*
Cattle, buffaloes	120	50	400	570
Sheep, lambs, goats	12	5	—	17

Livestock Slaughter Levy. The *Livestock Slaughter Levy Act* 1961 imposes a levy which is payable on all cattle, calves, bobby calves, sheep, lambs, goats and buffaloes slaughtered for human consumption. The funds are used by the Australian Meat and Livestock Corporation (AMLC) for marketing and promotion, by the Australian Meat Research Committee (AMRC) for production and economic research and by the CSIRO for meat processing research. The Slaughter Levy also provides the funds for the eradication of brucellosis and tuberculosis in cattle and buffaloes.

The levies are:

	Cents/Head				
	AMLC	*AMRC*	*CSIRO processing research*	*Disease eradication*	*Total*
Cattle, buffaloes	120	50	4	400	574
Calves	43.2	13	1.4	133	190.6
Bobby calves	12	3.5	0.4	40	55.9
Sheep, lambs	14	5	0.4	—	19.4
Lambs	24	5	0.4	—	29.4
Goats	12	5	0.4	—	17.4

Wheat Research Tax. The Wheat Tax Acts 1957 and 1979 impose a tax, currently 30c/tonne, on all wheat delivered to or sold by the Australian Wheat Board. The funds are placed in the Wheat Research Trust Account and used to fund research projects relating to wheat as recommended by the State Wheat Industry Research Committees.

Pay-roll tax

Commonwealth pay-roll tax came into operation on 2 May 1941 and provided for the imposition of a tax on wages paid or payable in respect of any period of time occurring after 30 June 1941. The tax was payable by employers on all wages and salaries paid or payable in excess of a general exemption. The rate of tax, 2.5 per cent, was not changed after its inception, but the general exemption was increased over the years from $173.33 to $1,733.33 per month ($2,080 per annum to $20,800 per annum).

From 1 September 1971, in accordance with an agreement between the Commonwealth Government and the States following the June 1971 Premiers' Conference, the Commonwealth Government vacated the pay-roll tax field in favour of the States. It continued, however, to impose pay-roll tax in the Australian Capital Territory and the Northern Territory. The laws relating to pay-roll tax in the Territories are the *Pay-roll Tax* (*Territories*) *Assessment Act* 1971 and the *Pay-roll Tax* (*Territories*) *Act* 1971.

Commonwealth pay-roll tax in the Northern Territory was terminated from 1 July 1978 by the Pay-Roll Tax (Territories) Assessment Act (No. 2) 1978 giving the Territory the right to levy its own pay-roll tax.

From 1 January 1984 the rate of tax payable in the Australian Capital Territory is 5 per cent with a statutory exemption of wages up to $10,833.33 per month ($130,000 per annum) or a proportion of that amount in the case of an employer who is an employer also in a State. Phasing out of the exemption remains at $2 for each $3 by which the annual wages payable exceed the maximum exemption level.

Gross collections of pay-roll tax in 1980–81, 1981–82 and 1982–83 amounted to $17,007,851, $19,319,922 and $21,355,311 respectively.

STATE AUTHORITIES

The State authorities dealt with in this section include the central government of each State, statutory bodies created by or under State legislation to carry out activities on behalf of the central government, and incorporated organisations in which individual State governments have a controlling interest.

The transactions of many of the State authorities are itemised in State Consolidated Revenue Funds or in Trust Funds, so that a satisfactory coverage of their transactions can be obtained from a detailed analysis and reclassification of the published accounts whose receipts and payments are summarised in the statement of Treasury balances for each State. The remaining statutory bodies and other publicly owned or controlled organisations maintain accounts entirely, or largely, separate from the public accounts, although there may be transactions between them and State governments (such as advances and capital contributions, interest and dividends, and votes for running expenses and capital works) which would affect the public accounts. The accounting reports of this group of organisations have to be collected and analysed in order to present a complete statement of the transactions of State authorities—or at least methods of analysis need to be adopted which adequately reflect their transactions so that they are, in principle, covered by the statistics.

In the figures which follow in this section, all expenditure by State central government authorities on certain institutions, whether direct (e.g. new building charged to Loan Fund) or indirect by way of current or capital grants to the bodies administering them, has been treated as final expenditure on goods and services by State authorities; fees and gifts from persons or private businesses to these institutions are not included, nor is the expenditure of the institutions from their own resources. Universities and hospitals are particular examples of organisations for which this practice has been adopted.

Many of these State authorities have been granted autonomy by State legislatures to the extent that they are largely financially independent. Some of these are funded from earmarked tax revenues and are vested with independent borrowing powers. A considerable number of others belong to the category of public enterprises, since they are able to charge for their services so as to cover their costs of operation. These bodies have usually been created to control a specific activity or provide a specific service within a State. It is often the case that in other States similar activities are carried out, or services are provided, by central government or local authorities. Details of the activities of autonomous or semi-autonomous State authorities engaged in such fields as construction and maintenance of roads and bridges, provision of water supply and sewerage services, harbour facilities, transport, electricity and gas, housing and banking may be found in chapters relevant to those subjects and in State Year Books.

Details of the transactions of State authorities are given in the tables which follow. Reference should be made to the introduction of *State and Local Government Finance, Australia* (5504.0) for definitions and descriptions of items appearing in these tables, and also for further details of the organisations covered by the figures. Additional information relating to the activities of the State authorities may also be found in the Year Books of the individual States.

Coverage—Northern Territory government authorities

On 1 July 1978 the Northern Territory became self-governing with expenditure responsibilities and revenue raising powers broadly approximating those of a State. In the period up to and including 1977–78 receipts and outlays relating to the Northern Territory are included with Commonwealth receipts and outlays but from 1978–79 onwards they have been grouped with the receipts and outlays of State authorities.

Outlay and receipts

The outlay and receipts of State authorities for the six year period ended 1981-82 are given in the following table.

STATE AUTHORITIES(*a*): OUTLAY AND RECEIPTS

($ million)

	1976-77	*1977-78*	*1978-79*	*1979-80*	*1980-81*	*1981-82*
OUTLAY						
Final consumption expenditure	8,145.1	9,250.2	10,232.0	11,629.4	13,552.3	15,435.1
Gross capital formation—						
Increase in stocks	25.5	62.7	36.5	64.3	110.0	131.4
Expenditure on new fixed assets	4,172.0	4,753.5	5,184.1	5,580.2	6,403.5	7,761.3
Expenditure on existing assets (net)	148.2	100.3	79.2	14.5	7.2	-968.6
Total gross capital formation	*4,345.8*	*4,916.6*	*5,299.8*	*5,659.0*	*6,520.7*	*6,924.2*
Transfer payments—						
Interest	1,476.6	1,714.3	1,966.4	2,221.4	2,663.9	3,191.9
Personal benefit payments	247.3	280.3	283.5	308.1	296.3	322.8
Subsidies	61.9	92.7	106.3	124.3	137.7	147.6
Transfers overseas	0.1	0.1	0.1	0.1	0.2	0.1
Grants for private capital purposes	49.8	64.3	73.1	65.1	67.6	91.0
Grants to local authorities	414.1	479.0	512.9	588.0	684.1	747.6
Total transfer payments	*2,249.9*	*2,630.8*	*2,942.3*	*3,307.1*	*3,849.6*	*4,500.9*
Net advances—						
To the private sector	189.4	214.0	114.9	97.2	91.0	74.7
To public financial enterprises	83.4	109.0	91.0	53.3	98.5	59.8
To local authorities	18.0	11.5	15.0	12.7	16.6	21.1
Total net advances	*290.8*	*334.5*	*220.9*	*163.2*	*206.1*	*155.7*
Total outlay	**15,031.6**	**17,132.0**	**18,695.1**	**20,758.8**	**24,128.7**	**27,015.8**
of which—						
current outlay	10,133.2	11,584.3	12,858.1	14,602.5	17,059.4	19,557.7
capital outlay	4,898.3	5,547.7	5,837.0	6,156.2	7,069.4	7,458.1
RECEIPTS AND FINANCING ITEMS						
Receipts—						
Taxes, fees, fines, etc.	3,973.5	4,300.8	4,667.3	5,264.4	6,045.1	7,104.2
Income from public enterprises	353.5	380.0	471.6	650.7	704.5	757.9
Property income	621.6	740.9	789.0	975.7	1,173.0	1,328.6
Grants from the Commonwealth Government—						
for current purposes	6,110.2	7,215.3	8,137.9	9,079.6	10,290.4	11,382.0
for capital purposes	1,537.3	1,508.9	1,483.8	1,565.4	1,668.9	1,769.8
Grants from local authorities	32.1	36.0	35.5	44.7	51.8	56.5
Total receipts	*12,628.2*	*14,181.8*	*15,585.0*	*17,580.5*	*19,933.7*	*22,399.0*
Financing items—						
Net borrowing—						
Public trading enterprises	668.6	893.5	1,188.8	1,445.2	1,761.8	2,365.7
General government	124.8	118.0	204.2	274.5	311.2	408.1
Advances from the Commonwealth Government (net)—						
For loan works purposes	744.7	784.8	770.6	704.5	741.7	730.4
Other	533.4	476.3	356.6	191.5	194.8	131.7
Net receipts of private trust funds	213.1	171.3	163.6	164.8	189.8	262.6
Reduction in cash and bank balances	-396.2	-43.7	-246.5	-142.2	-102.1	-474.9
Reduction in security holdings—						
Investment of private trust funds	-39.8	-42.2	-69.2	-82.3	-27.7	-114.9
Investment of governmental trust funds and public corporations	-58.5	-121.7	-54.9	-66.2	59.4	80.2
Other funds available (including errors and omissions)—						
Depreciation allowances	356.2	412.5	467.8	489.7	561.5	631.1
Other	257.1	301.3	329.2	198.9	504.8	196.7
Total financing items	*2,403.4*	*2,950.2*	*3,110.1*	*3,178.3*	*4,195.0*	*4,216.8*
Total funds available	**15,031.6**	**17,132.0**	**18,695.1**	**20,758.8**	**24,128.7**	**27,015.8**

(*a*) Excludes financial enterprises. Includes Northern Territory authorities from 1978-79.

Components of outlay and receipts

For further details about the components of outlays and receipts, *see* Yearbook No. 68. For more recent information on State Government finance statistics, reference should be made to the publications listed in the bibliography at the end of this chapter.

LOCAL AUTHORITIES

In each State of Australia and in the Northern Territory there exists a system of local government whose powers and responsibilities are generally similar and cover such matters as the construction and maintenance of roads, streets and bridges; water, sewerage and drainage systems; health and sanitary services; the supervision of building; and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, swimming pools, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc. vary considerably from State to State, and even within States.

The areas over which local government bodies, numbering almost 900, exercise general control, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania and the Northern Territory as cities and municipalities. In New South Wales some local authorities in an area have combined to form County Councils which provide services such as electricity and water supply. Within shires there are also some municipal units known as urban areas. Apart from the Australian Capital Territory and the more sparsely populated parts of New South Wales, South Australia and the Northern Territory, practically the whole of Australia comes within local government jurisdiction. For further details *see* State Year Books.

Coverage—Northern Territory local authorities

On 1 July 1978, the Northern Territory became self-governing with expenditure responsibilities and revenue raising powers broadly approximating those of a State. In the period up to and including 1977–78 receipts and outlays relating to the Northern Territory are included with Commonwealth Government receipts and outlays but from 1978–79 onwards they have been grouped with the receipts and outlays of State and local authorities.

Area, population, dwellings, and rates and penalties for ordinary services

The area, population, dwellings, and the amount of rates and penalties collected for ordinary services in the incorporated areas of each State are shown in the following table. Particulars of dwellings are in accordance with the definition used in the Census, and are compiled from information collected on the Census Schedules. In the table, where the boundary of a capital city statistical division cuts across a local government area, the area of that capital city statistical division has been estimated. Particulars of population for capital city statistical divisions take account of those local government areas which overlap with capital city statistical division boundaries.

The item 'Rates and Penalties for Ordinary Services' relates to general and other special or local rates (excluding water and sewerage rates) levied or declared or, where the cash accounting system operates, the rates collected.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND RATES AND PENALTIES FOR ORDINARY SERVICES—30 JUNE 1981

Location (a)	*No. of local authorities*	*Area (a)*	*Population*	*Dwellings*	*Rates and penalties—ordinary services*
		square kilometres	'000	'000	$'000
New South Wales—					
Sydney Statistical Division	44	12,407	3,205	1,150	388,011(*c*)
Other	132	693,253	1,920	672	240,789(*c*)
Total New South Wales	*176*	*705,660*	*5,124*	*1,822*	*628,800(c)*
Victoria—					
Melbourne Statistical Division	*56*	*6,109*	*2,723*	*965*	*310,476(d)*
Other	155	220,991	1,109	403	138,906(*d*)
Total Victoria	*211*	*227,100*	*3,832*	*1,368*	*449,383(d)*
Queensland—					
Brisbane Statistical Division	10	3,080	1,029	359	106,347
Other	124	1,723,920	1,266	428	120,674
Total Queensland	*134*	*1,727,000*	*2,294*	*787*	*227,021*
South Australia—					
Adelaide Statistical Division(*b*)	30	1,870	932	340	84,167
Other	97	151,806	339	132	34,578
Total South Australia	*127*	*153,676*	*1,270*	*471*	*118,745*
Western Australia—					
Perth Statistical Division	26	5,363	899	322	78,754
Other	112	2,522,676	375	126	36,524
Total Western Australia	*138*	*2,528,039*	*1,274*	*448*	*115,278*
Tasmania—					
Hobart Statistical Division	7	940	168	61	16,056
Other	42	67,391	251	93	22,563
Total Tasmania	*49*	*68,331*	*419*	*154*	*38,619*

(*a*) Unincorporated areas are excluded in all States. (*b*) Excludes Light (DC), Gumeracka (DC) and Onkaparinga (DC).
(*c*) Based on year ended 31 December 1981. (*d*) Based on year ended 30 September 1981.

Outlay and receipts

The following table shows details of the outlay and receipts of all local authorities for the years 1976–77 to 1981–82.

LOCAL AUTHORITIES(*a*): OUTLAY AND RECEIPTS

($ million)

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
			OUTLAY			
Final consumption expenditure						
General public services	228.4	269.6	302.5	336.5	381.5	442.4
Education	8.5	8.5	9.5	10.6	12.4	14.3
Health	41.6	45.5	52.8	50.7	59.6	68.4
Social security and welfare	17.8	26.4	34.4	37.7	53.0	62.4
Housing and community amenities						
Community and regional development	13.5	12.6	16.4	25.0	33.0	40.2
Protection of the environment	65.1	70.5	82.5	111.2	127.7	143.3
Other	10.6	12.9	15.3	25.5	30.2	35.9
Recreation and culture	167.4	192.0	215.6	231.8	273.6	326.0
Economic services	63.2	75.4	87.7	95.2	107.1	114.5
Other purposes	4.4	10.7	11.5	14.5	4.8	7.0
Total	*620.2*	*724.3*	*828.1*	*938.8*	*1,083.0*	*1,254.5*
Gross capital formation						
Expenditure on new fixed assets						
General public services	102.7	131.2	155.7	158.4	170.1	188.8
Education	4.2	2.8	2.8	2.4	2.0	1.7
Health	2.4	1.8	3.0	3.2	3.4	4.0
Social security and welfare	6.5	7.9	10.7	12.7	13.5	15.1
Housing and community amenities						
Community and regional development	4.4	9.4	11.8	4.1	6.4	7.6
Protection of the environment	126.7	135.0	134.4	160.1	175.5	201.8
Other	9.1	10.4	7.9	15.9	26.6	31.3

For footnote *see* end of table.

LOCAL AUTHORITIES: OUTLAY AND RECEIPTS—*continued*

($ million)

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
OUTLAY						
Recreation and culture	75.5	90.4	114.9	136.6	161.8	161.5
Economic services						
Mining, manufacturing and construction	8.6	9.1	9.6	5.5	6.4	2.6
Electricity and gas	131.4	121.7	122.0	145.1	155.4	203.1
Water supply	60.9	75.3	85.0	94.9	116.6	134.9
Road systems and regulation	607.0	650.7	708.3	733.0	820.8	877.7
Other transport services, n.e.c.	6.4	6.3	2.8	5.5	6.6	6.8
Other economic services(*b*)	6.5	7.1	7.9	18.2	22.1	30.4
Other purposes	2.3	7.9	2.7	24.2	28.1	34.0
Total	*1,154.5*	*1,267.0*	*1,379.5*	*1,519.5*	*1,715.2*	*1,901.4*
Expenditure on existing assets and stocks (net)	23.5	27.9	2.0	1.3	–22.0	16.0
Interest paid	215.4	252.9	289.7	325.4	369.3	435.2
Grants to State authorities	32.1	36.0	35.5	44.7	51.8	56.5
Net advances to the private sector	6.1	4.5	12.8	7.5	2.3	3.7
Total outlay	**2,051.7**	**2,312.7**	**2,547.6**	**2,837.2**	**3,199.5**	**3,667.2**
of which–						
current outlay	857.8	1,001.5	1,144.1	1,295.2	1,492.4	1,733.5
capital outlay	1,193.9	1,311.2	1,403.5	1,542.0	1,707.1	1,933.7
RECEIPTS AND FINANCING ITEMS						
Receipts –						
Taxes, fees, fines, etc. –						
Rates on land	1,033.7	1,120.9	1,214.8	1,339.0	1,518.3	1,732.6
Licences, etc.	38.7	43.3	49.0	60.9	77.1	88.4
Total	*1,072.4*	*1,164.2*	*1,263.8*	*1,399.9*	*1,595.4*	*1,821.0*
Income from public enterprises	181.6	188.9	186.0	195.4	208.0	243.5
Property income	55.9	82.2	93.8	102.7	135.0	194.2
Grants from State and Commonwealth authorities	427.6	493.1	530.3	605.3	707.4	776.7
Total receipts	*1,737.3*	*1,928.4*	*2,074.1*	*2,303.4*	*2,645.8*	*3,035.4*
Financing items						
Net borrowing	332.0	309.4	333.3	361.0	312.0	290.2
Advances from State and Commonwealth authorities	18.0	11.5	15.0	12.7	16.6	21.1
Net receipts of private trust funds	3.3	3.3	1.7	11.7	–28.7	–19.4
Reduction in cash and bank balances	–148.8	–48.5	7.6	11.9	–16.4	–70.3
Reduction in security holdings—						
Investments of governmental funds and trading enterprises	–12.6	–69.4	–57.9	–59.7	–12.8	–1.1
Other funds available (including errors and omissions)						
Depreciation allowances	52.8	58.5	73.3	74.7	85.6	102.4
Other	69.5	119.5	100.6	121.6	197.4	308.9
Total financing items	*314.3*	*384.3*	*473.5*	*533.9*	*553.7*	*631.8*
Total funds available	**2,051.7**	**2,312.7**	**2,547.6**	**2,837.2**	**3,199.5**	**3,667.2**

(*a*) Includes Northern Territory authorities from 1978-79. (*b*) Includes general administration, regulation and research.

Components of Outlay and Receipts

For further details about the components of outlay and receipts *see* Yearbook No. 68. For more recent information on local government finance statistics, reference should be made to the publications and statistical services listed in the bibliography at the end of this chapter.

ALL PUBLIC AUTHORITIES

In the following table the transactions of the Commonwealth Government, State and local authorities have been brought together and consolidated to provide details of the outlay and receipts of the public authority sector as a whole.

Summary of outlay and receipts

The outlay and receipts of all public authorities for the years 1976–77 to 1981–82 are set out in the following table.

ALL PUBLIC AUTHORITIES(*a*): OUTLAY AND RECEIPTS
($ million)

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
OUTLAY						
Final consumption expenditure	13,502.1	15,213.7	16,716.8	18,885.8	22,060.0	25,398.9
Gross capital formation—						
Increase in stocks	–23.0	–47.5	–162.1	8.0	203.3	316.5
Expenditure on new fixed assets	6,993.2	7,792.0	8,076.0	8,705.9	10,083.5	11,821.0
Expenditure on existing assets (net)	174.0	103.9	–18.8	–22.6	–452.3	–1,237.3
Total gross capital formation	*7,144.2*	*7,848.4*	*7,895.0*	*8,691.2*	*9,834.5*	*10,900.2*
Transfer payments—						
Interest	2,096.0	2,515.3	3,045.5	3,527.3	4,209.8	5,020.3
Transfers to persons	7,760.0	8,704.4	9,555.6	10,393.3	11,738.2	13,666.1
Subsidies	314.0	516.4	632.0	815.3	997.1	1,095.5
Transfers overseas	388.0	417.3	474.9	520.0	574.8	668.3
Grants for private capital purposes	160.0	194.5	204.9	231.9	205.2	319.4
Total transfer payments	*10,718.0*	*12,348.1*	*13,913.0*	*15,487.9*	*17,725.0*	*20,769.5*
Net advances—						
To the private sector	255.3	281.6	138.0	93.3	130.8	160.9
To public financial enterprises	90.8	98.5	80.8	–7.9	84.3	44.9
To overseas	42.7	0.3	18.4	79.1	54.0	–8.9
Total net advances	*388.8*	*380.4*	*237.2*	*164.5*	*269.1*	*196.9*
Total outlay	**31,753.1**	**35,790.5**	**38,761.8**	**43,229.4**	**49,888.3**	**57,265.4**
of which—						
current outlay	24,063.2	27,367.2	30,424.8	34,141.6	39,579.8	45,848.8
capital outlay	7,689.9	8,423.3	8,327.1	9,087.9	10,308.6	11,416.6
RECEIPTS AND FINANCING ITEMS						
Receipts—						
Taxes, fees, fines, etc.	24,811.1	26,958.9	29,397.4	34,212.5	40,354.9	46,915.8
Income from public enterprises	1,192.1	1,388.1	1,668.0	1,838.6	1,904.2	2,320.3
Interest, etc., received	826.9	1,014.3	1,061.1	1,310.4	1,591.3	1,855.9
Total receipts	*26,830.1*	*29,361.3*	*32,126.5*	*37,361.5*	*43,850.4*	*51,092.0*
Financing items—						
Net borrowing—						
Treasury notes	363.2	193.5	1,546.8	705.3	1,312.2	–347.4
Commonwealth Government securities	2,097.5	2,979.2	2,469.6	893.4	–187.4	693.2
Local authority and public corporation securities	1,445.4	1,534.4	1,715.3	2,248.3	2,364.1	3,142.4
Other general Government securities	126.4	118.0	204.2	274.5	311.2	408.1
Total net borrowing	*4,032.4*	*4,825.0*	*5,935.9*	*4,121.4*	*3,800.1*	*3,896.3*
Funds provided for, or received from I.M.F.	—	—	27.9	60.6	–106.7	0.3
Net receipts of private trust funds	308.3	326.6	326.4	357.1	462.0	628.8
Reduction in cash and bank balances	–854.2	121.6	–718.5	394.5	–452.1	–628.6
Reduction in security holdings	33.2	–464.9	–526.3	–798.6	210.4	78.2
Other funds available (including errors and omissions)—						
Depreciation allowances	851.5	965.0	1,091.5	1,160.7	1,341.1	1,487.5
Other	552.0	656.0	498.5	572.4	783.3	710.6
Total financing items	*4,923.1*	*6,429.3*	*6,635.3*	*5,868.0*	*6,037.9*	*6,173.4*
Total funds available	**31,753.1**	**35,790.5**	**38,761.8**	**43,229.4**	**49,888.3**	**57,265.4**

(*a*) Excludes financial enterprises.

PUBLIC SECTOR BORROWING

Figures given in this section do not purport to show either 'public debt' or 'net public debt', but are designed to provide details of securities issued on behalf of the Commonwealth Government and the States, together with some details of the amounts borrowed by State and local authorities with independent borrowing powers.

For a number of reasons, this information cannot be aggregated, without adjustment, to provide a measure of the 'debt' of public authorities. There are forms of debt not evidenced by the issue of securities, such as Commonwealth Government advances to the States for specific capital purposes. Governments themselves maintain significant holdings of their own securities; for example, the Commonwealth Government, in the National Debt Sinking Fund, the Loan Consolidation and Investment Reserve, and in other Trust Funds, holds large investments in securities issued either directly by itself or on behalf of the States. Some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth Government, the Australian currency counterpart proceeds of the loans being invested in special loans to finance State works programs. A number of State public corporations and local authorities also maintain significant investments in government securities (including their own securities). Aggregation of the figures for securities on issue which follow would clearly involve a substantial degree of duplication; the sum of securities on issue therefore cannot be regarded as representing 'net public debt'.

Commonwealth Government and States: Government securities on issue

Under the 1927 Financial Agreement between the Commonwealth Government and the States, the Commonwealth Government accepted responsibility for the securities of State governments then on issue and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth Government securities for all moneys borrowed.

A National Debt Sinking Fund, which is administered by the National Debt Commission, was established by the *National Debt Sinking Fund Act 1923* for the redemption of securities issued on behalf of the Commonwealth Government. Under the terms of the Financial Agreement, the sinking funds existing in respect of the States' debts were also placed under the control of the Commission. The Commonwealth Government is reimbursed by the States for interest, exchange, etc. paid on their behalf, and the securities are redeemed from the Fund to which both the Commonwealth and the State governments make pre-determined contributions. The amounts to be contributed were varied when the *National Debt Sinking Fund Act 1966* repealed all previous legislation on sinking funds relating to securities on issue on behalf of the Commonwealth Government, and again in 1976 when the Act was amended to reflect the amendments to the Financial Agreement. In 1976 the Commonwealth assumed the responsibility for over $1,000 million of States' debt existing as at 30 June 1975. As a consequence, the separate States' Sinking Funds were absorbed into the National Debt Sinking Fund, with separate accounts being maintained for the Commonwealth and each State.

For further information relating to the recent operations of the National Debt Sinking Fund reference should be made to the fifty-seventh annual report of the National Debt Commission. Particulars of the creation and operation of sinking funds by the *National Debt Sinking Fund Act 1923* are included in issues of the Year Book prior to No. 23, and a general description of the provisions applying between 1966 and 1976 is given in issue No. 61.

In the tables which follow, details are given of transactions in Commonwealth Government securities issued on account of the Commonwealth Government and the States. Amounts relating to overseas loans are shown in Australian currency equivalent calculated on the basis of the rates of exchange ruling at 30 June in each year shown. All amounts shown are at face value.

For figures which permit accurate analysis of the structure and movement of securities issued on behalf of the Commonwealth and States, refer to the Commonwealth Budget Paper No. 8, *Government Securities on Issue*.

Net movement in securities on issue

Summary details of the net movement in securities issued for Commonwealth Government purposes and on account of the States during the period 1978–79 to 1983–84, are given in the following group of tables.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE

($ million)

	1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
NEW SECURITIES ISSUED						
Securities repayable in Australian currency—						
Treasury bonds	1,018.5	1,485.7	2,774.7	3,385.8	6,253.8	10,850.0
Australian savings bonds	531.2	806.1	2,024.0	1,312.9	4,204.6	3,599.1
Special bonds	–	–	–	–	–	–
Income equalization deposits	33.1	73.5	72.0	57.6	55.6	24.0
Drought bonds	–	–	–	–	–	–
Advance loan subscriptions	(*a*)50B4.6	–	–	–	–	–
Overdue securities	–	–	–	–	–	–
Tax-free stock	–	–	–	–	–	–
Debentures	–	–	–	–	–	–
Stock issued to Government savings banks under special agreements(*b*)	35.8	36.5	54.6	53.3	61.9	114.6
Treasury notes	4,245.1	7,870.4	12,058.1	12,594.5	–	–
Treasury bills—						
Internal	(*a*)–187.7	141.8	2,234.2	1,718.0	–	–
Public	(*a*)500.0	500.0	14,706.0	14,200.0	–	–
Total	*6,171.3*	*10,913.9*	*33,923.6*	*33,322.1*	*10,575.9*	*14,587.8*
Securities repayable in overseas currencies(c)	1,453.8	482.1	178.2	831.3	1,077.0	1,238.4
Total new securities issued	**7,625.1**	**11,396.0**	**34,101.8**	**34,153.4**	**11,652.9**	**15,826.2**
REDEMPTIONS, REPURCHASES, CANCELLATIONS(*d*)						
Securities repayable in Australian currency—						
Treasury bonds	222.6	1,035.6	2,587.1	2,317.0	3,117.0	3,189.2
Australian savings bonds	164.4	586.2	2,093.4	1,913.9	1,736.8	1,619.9
Special bonds	72.7	44.6	251.4	122.8	71.0	31.5
Income equalization deposits	20.4	16.4	45.1	55.2	65.8	48.6
Drought bonds	0.2	0.2	0.1	0.1	–	–
Advance loan subscriptions	–	–	–	–	–	–
Overdue securities	1.8	0.6	–1.5	–3.3	8.2	9.0
Tax-free stock	0.3	–	–	0.9	0.1	0.2
Debentures	3.8	4.0	4.2	4.4	3.3	–
Stock issued to Government savings banks under special agreements(*b*)	9.6	6.3	6.4	5.6	5.8	6.0
Treasury notes	3,198.3	7,665.2	10,145.9	12,441.9	44.2	1,562.8
Treasury bills—						
Internal	–	–	2,888.3	1,509.7	152.2	479.6
Public	–	–	15,306.0	14,700.0	1,400.0	–
Total	*3,694.2*	*9,359.1*	*33,326.4*	*33,068.1*	*6,604.5*	*6,946.9*
Securities repayable in overseas currencies(c)	–165.7	340.4	922.5	131.3	1,523.9	666.1
Total redemptions, etc.	**3,528.5**	**9,699.5**	**34,248.9**	**33,199.4**	**8,128.4**	**7,612.9**
NET MOVEMENT						
Securities repayable in Australian currency—						
Treasury bonds	795.9	450.1	187.6	1,068.8	3,136.8	7,653.9
Australian savings bonds	366.8	219.9	–69.4	–601.0	2,467.8	1,975.6
Special bonds	–72.7	–44.6	–251.4	–122.8	–71.0	–31.9
Income equalization deposit	12.7	57.1	26.9	2.4	–10.2	–24.5
Drought bonds	–0.2	–0.2	–0.1	–0.1	–	–0.1
Advance loan subscriptions	–4.6	–	–	–	–	–
Overdue securities	–1.8	–0.6	1.5	3.3	–8.2	2.0
Tax-free stock	–0.3	–	–	–0.9	–0.1	–0.2
Debentures	–3.8	–4.0	–4.2	–4.4	–3.3	–
Stock issued to Government savings banks under special agreements(*b*)	26.2	30.2	48.2	47.7	56.1	108.7
Treasury notes	1,046.8	205.2	1,912.2	152.6	–44.2	–1,562.8
Treasury bills—						
Internal	–187.7	141.8	–654.1	208.3	–152.2	–479.6
Public	500.0	500.0	–600.0	–500.0	–1,400.0	–
Total	*2,477.2*	*1,554.8*	*597.2*	*254.0*	*3,971.4*	*7,640.9*
Securities repayable in overseas currencies(c)	1,619.5	141.7	–744.3	700.0	–446.9	164.8
Net movement in securities on issue	**4,096.7**	**1,696.5**	**–147.1**	**954.0**	**3,524.5**	**7,805.7**

(*a*) Net issue. (*b*) Recorded in Commonwealth Government Loan Fund as State domestic raisings. (*c*) Australian currency equivalent at rates of exchange ruling at 30 June in each of the years shown. (*d*) Includes conversions from one type of security to another, which affect the net movements of individual loan categories, but do not affect the overall net movement.

NOTE: For securities repayable in overseas currencies the amounts shown also include an element due to exchange rate variations in Securities on Issue.

Government securities on issue.

The following table provides details of government securities on issue on account of the Commonwealth Government and the States, repayable in Australian and in overseas currencies.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES

($ million)

	30 June					
	1979	*1980*	*1981*	*1982*	*1983*	*1984*
For Commonwealth Government purposes—						
Repayable in Australian currency—						
Treasury bonds	5,269.8	5,523.6	5,037.4	5,570.0	8,307.7	15,493.6
Australian savings bonds	1,700.5	1,496.0	1,215.7	381.2	2,633.9	4,577.3
Special bonds	93.8	75.9	30.4	11.1	1.3	–
Income equalization deposit	79.4	136.4	163.3	165.7	155.5	130.9
Drought bonds	0.5	0.4	0.3	0.2	0.1	–
Advance loan subscriptions	–	–	–	–	–	–
Overdue securities	3.5	3.0	4.4	7.8	6.8	8.8
Treasury notes	1,409.9	1,615.2	3,527.4	3,680.0	3,635.8	2,073.0
Treasury bills -						
Internal	1,668.5	1,810.3	1,156.2	1,364.5	1 212.3	732.7
Public	2,000.0	2,500.0	1,900.0	1,400.1	–	–
Total	*12,225.9*	*13,160.8*	*13,035.1*	*12,580.4*	*15,953.4*	*23,016.4*
Repayable in overseas currencies(*a*)	5,178.9	5,326.4	4,618.7	5,335.7	6,905.2	7,076.2
Total Commonwealth Government	*17,404.8*	*18,487.2*	*17,653.8*	*17,916.1*	*22,858.5*	*30,092.6*
On account of States—						
Repayable in Australian currency—						
Treasury bonds	11,660.6	11,856.8	12,530.7	13,067.0	13,464.2	13,932.2
Australian savings bonds	959.8	1,384.2	1,595.2	1,828.7	2,038.9	2,071.1
Special bonds	428.7	402.0	196.0	92.5	30.6	–
Tax-free stock	14.8	14.7	14.7	13.9	13.8	13.6
Stock issued to Government savings banks under special agreements	525.5	555.7	603.9	651.6	707.8	816.5
Debentures	15.9	11.9	7.7	3.3	–	–
Overdue securities	0.1	–	–	–	0.2	0.1
Total	*13,605.4*	*14,225.4*	*14,948.2*	*15,657.0*	*16 255.5*	*16,833.4*
Repayable in overseas currencies(*a*)	75.9	70.0	33.3	16.3	13.9	7.7
Total States	*13,681.3*	*14,295.3*	*14,981.5*	*15,673.3*	*16 269.4*	*16,841.1*
of which–						
New South Wales	4,466.3	4,666.8	4,885.4	5,108.1	5,327.9	5,566.5
Victoria	3,427.6	3,584.9	3,758.1	3,932.4	4,045.3	4,204.1
Queensland	1,856.0	1,931.8	2,022.4	2,113.0	2,198.7	2,291.6
South Australia	1,701.5	1,781.1	1,871.1	1,961.9	2,035.2	2,009.4
Western Australia	1,307.3	1,360.7	1,423.8	1,486.3	1,547.8	1,614.9
Tasmania	922.6	969.9	1,020.8	1,071.6	1,114.4	1,154.5
Total Commonwealth Government and States	**31,086.0**	**32,782.6**	**32,635.4**	**33,589.4**	**39,127.9**	**46,933.6**

(*a*) Australian currency equivalent.

State and local authorities' borrowings

The borrowings of Commonwealth, State and local authorities come within the purview of the Loan Council under a 'gentlemen's agreement' originating in 1936. The Loan Council determines maximum interest rates and other terms and conditions of loans raised by authorities and approves the aggregate annual borrowing program for authorities borrowing more than $1.5 million in the financial year. The total program approved is distributed by the Council between the States, and each State determines the distribution between individual authorities of its share of the overall borrowing program approved for such authorities. Authorities which individually borrow less than $1.5 million in the financial year are also subject to the terms and conditions applying under the 'gentlemen's agreement', and it is the responsibility of the States to ensure that these authorities conform with these terms and conditions. No aggregate annual limit on their borrowings is imposed by the Loan Council.

The following table shows the aggregate borrowings by the State and local authorities in each of the years 1977–78 to 1982–83. It will be seen that the amounts borrowed by local authorities vary between the States, reflecting a number of factors including, importantly, variations between the States in the range of services provided by local government authorities. For example, the high figures for

Queensland reflect, in part, borrowings by the Brisbane City Council which carries out a number of functions (e.g. metropolitan bus services and sewerage services) which in other States are undertaken by State authorities.

For further information relating to the figures given in the table, reference should be made to the Commonwealth Budget Paper No. 7, *Payments to or for the States, the Northern Territory and Local Government Authorities.*

NEW MONEY BORROWINGS BY STATE AND LOCAL AUTHORITIES

($'000)

	New South Wales	*Victoria*	*Queensland*	*South Australia*	*Western Australia*	*Tasmania*	*Total*
STATE AUTHORITIES(*a*)							
1977–78	332,215	388,620	198,721	73,220	78,689	30,771	1,102,236
1978–79	371,800	412,756	194,726	83,953	111,081	34,139	1,208,455
1979–80	472,761	382,657	235,264	56,830	108,593	34,445	1,290,550
1980–81	472,761	382,657	223,264	56,812	117,358	44,445	1,297,252
1981–82 (b)	472,761	402,657	223,264	56,828	101,612	34,445	1,291,567
1982–83 (b)	323,700	286,100	186,600	32,900	46,900	2,000	878,200
LOCAL AUTHORITIES(*c*)							
1977–78	202,230	84,493	117,993	19,424	36,481	17,405	478,026
1978–79	215,641	81,795	126,709	24,621	39,286	17,841	505,893
1979–80	235,407	90,702	147,948	26,604	40,336	15,426	556,423
1980–81	251,261	95,769	154,245	25,087	42,354	15,120	583,836
1981–82	189,700	84,149	155,920	23,943	39,522	12,654	505,888
1982–83	196,500	77,764	164,060	19,718	41,107	11,232	510,381

(*a*) New money borrowings by State-type authorities in the Northern Territory in 1981–82 were $26,000,000 and $30,400,000 in 1982-83. (*b*) Excludes borrowings by electricity authorities. In June 1982 the Loan Council decided to remove its control over the domestic borrowings by these authorities. (*c*) New money borrowings by local authorities in the Northern Territory are not included in the table. These borrowings are as follows: 1977 78, $1,697,000; 1978 -79, $631,000; 1979–80, $1,240,000; 1980–81, $842,000; 1981–82, $1,318,000; 1982-83, $1,776,000.

Additional details of the transactions of public authorities engaged in particular fields of activity, such as defence, transport and communication, health and welfare, education, etc., may be found in other chapters of this Year Book.

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ABS Publications

Monthly Summary of Statistics, Australia (1304.0);
Digest of Current Economic Statistics, Australia (1305.0);
Australian National Accounts, National Income and Expenditure (5204.0);
Quarterly Estimates of National Income and Expenditure, Australia (5206.0);
Government Financial Estimates, Australia (5501.0);
Commonwealth Government Finance (5502.0);
State and Local Government Finance, Australia (5504.0) and Taxation Revenue, Australia (5506.0).
Standardised Local Government Financial Statistics (tape and microfiche service) (1212.0)

CHAPTER 23

NATIONAL ACCOUNTS

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

Estimates of national income and expenditure have been compiled by the ABS since 1944–45 and have been published annually as papers entitled *National Income and Expenditure* accompanying the Commonwealth Budgets. (Other national accounting publications are also produced regularly. A list of these can be found at the end of this chapter.)

NATIONAL INCOME AND EXPENDITURE

Description of National Income and Expenditure Accounts

A brief description of the conceptual basis of national accounts is given in this section, but for a more detailed treatment of the concepts and structure of the Australian national accounts reference should be made to *Australian National Accounts, Concepts, Sources and Methods* (5216.0).

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian National Accounts are defined and expressed in equivalents as follows.

Gross domestic product is the total market value of goods and services produced in Australia within a given period after deduction of the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. Thus, gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services. *Gross farm product* is that part of gross domestic product which derives from production in agriculture and services to agriculture. *Gross non-farm product* arises from production in all other industries.

Gross domestic product at factor cost is that part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour, land, capital and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross domestic product less net indirect taxes.

Domestic factor incomes is that part of the value added within a given period by factors of production (labour, land, capital and enterprise) which accrues as income to their suppliers after allowing for the depreciation of fixed capital. It is equivalent to gross domestic product at factor cost less depreciation allowances.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital and enterprise) in Australia or overseas plus indirect taxes less subsidies. It is equivalent to domestic factor incomes plus indirect taxes less subsidies and net income paid overseas.

National disposable income is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from net transfers from overseas. It is equivalent to national income less net transfers overseas plus net withholding taxes received from overseas.

Gross national expenditure is the total expenditure within a given period on final goods and services (i.e. excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to the gross domestic product plus imports of goods and services less exports of goods and services.

Household income is the total income, whether in cash or kind, received by persons normally resident in Australia in return for productive activity (such as wages, salaries and supplements, incomes of unincorporated enterprises, etc.) and transfer incomes (such as cash social service benefits, interest, etc.). It includes the imputed interest of life offices and superannuation funds, which is the benefit accruing to policy holders and members from investment income of the funds. It also includes third party motor vehicle and public risk insurance claims paid to persons in respect of policies taken out by enterprises. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income. It also includes any property income received by non-profit organisations such as private schools, churches, charitable organisations, etc.

The relationship between these aggregates (other than household income) are illustrated in the following diagram.

RELATIONSHIP OF MAIN IDENTITIES

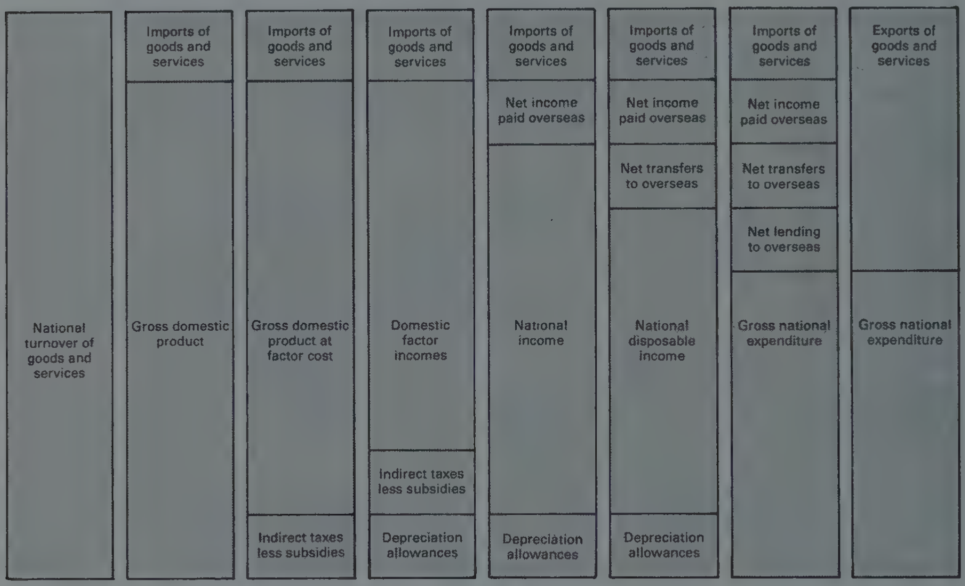
National turnover of goods and services
Imports of goods and services
Gross domestic product
Imports of goods and services
Gross domestic product at factor cost
Indirect taxes less subsidies
Imports of goods and services
Domestic factor incomes
Indirect taxes less subsidies
Depreciation allowances
Imports of goods and services
Net income paid overseas
National income
Depreciation allowances
Imports of goods and services
Net income paid overseas
Net transfers to overseas
National disposable income
Depreciation allowances
Imports of goods and services
Net income paid overseas
Net transfers to overseas
Net lending to overseas
Gross national expenditure
Exports of goods and services
Gross national expenditure

PLATE 45

Framework of accounts and sectors

In the Australian national accounts, four internal sectors are distinguished: corporate trading enterprises (including public trading enterprises), financial enterprises (including the nominal industry), households (including their unincorporated enterprises) and general government. All of these internal sectors engage in productive activity, receive and disburse income and accumulate assets. In this publication no accounts are shown for individual internal sectors. The transactions of the internal sectors are summarised in three accounts: a domestic production account (Table 1, page 537), a national income and outlay account (Table 3, page 538) and a national capital account (Table 4, page 538). In addition, there is an overseas sector having an account (Table 6, page 539) which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents.

The framework of sectors and accounts underlying the Australian national accounts is set out in the following diagram. The heavy rectangles depict the minimum system of four accounts which represent the consolidated accounts of the nation. The light rectangles represent the accounts for institutional sectors. The subdivision of the domestic production account represents production accounts for establishments classified according to industry. Selected transactions from such production accounts are shown in *Australian National Accounts, National Income and Expenditure* (5204.0). Such production accounts can be developed in detail to produce input-output tables.

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS

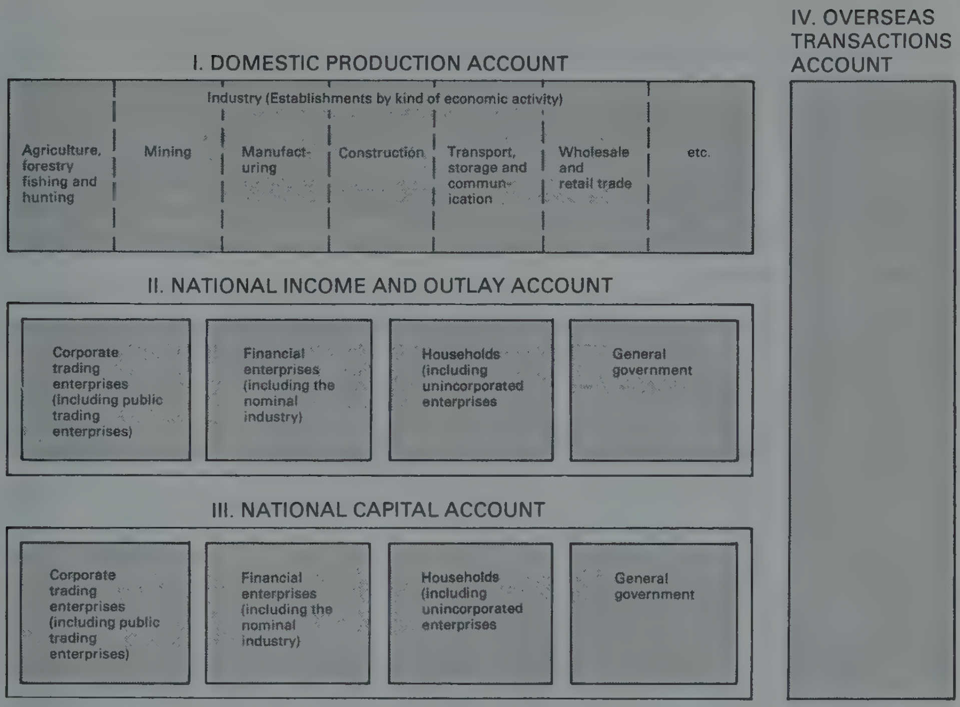
IV. OVERSEAS TRANSACTIONS ACCOUNT
I. DOMESTIC PRODUCTION ACCOUNT
Industry (Establishments by kind of economic activity)
Agriculture, forestry fishing and hunting
Mining
Manufacturing
Construction
Transport, storage and communication
Wholesale and retail trade
etc.
II. NATIONAL INCOME AND OUTLAY ACCOUNT
Corporate trading enterprises (including public trading enterprises)
Financial enterprises (including the nominal industry)
Households (including unincorporated enterprises
General government
III. NATIONAL CAPITAL ACCOUNT
Corporate trading enterprises (including public trading enterprises)
Financial enterprises (including the nominal industry)
Households (including unincorporated enterprises
General government

PLATE 46

Description of the accounts

The *domestic production account* is a consolidation of the production accounts of all producers regardless of sector. The production account is shown as receiving revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes less subsidies, and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees. The balance is the gross operating surplus which may be divided into depreciation allowances and net operating surplus. Depreciation allowances is carried to the national capital account (or the sector capital accounts) and net operating surplus, together with wages and salaries and indirect taxes less subsidies, is carried to the national income and outlay account (or sector income and outlay accounts). In input-output tables, the domestic production account is broken up into accounts for separate industries, and transactions associated with intermediate usage of goods and services are shown in the production accounts for the separate industries.

The *national income and outlay account* is shown as receiving wages, salaries and supplements, net operating surplus and indirect taxes less subsidies from the domestic production account. From this income are deducted net payments of income and miscellaneous transfers to overseas; the remainder is the national disposable income. The outlay side of the account shows that this disposable income is largely used for final consumption expenditure and the balance is the nation's saving. The national income and outlay account is a consolidation of the sector income and outlay accounts.

The *national capital account* is a consolidation of the sector capital accounts. It shows on the receipts side depreciation allowances transferred from the domestic production account and saving transferred from the national income and outlay account (or from the sector income and outlay accounts). On the payments side are shown purchases by all sectors of new buildings and capital equipment, the increase in stocks of all sectors and a balance described as net lending to overseas. This concept of net lending to overseas includes increases (and, negatively, decreases) in Australia's overseas monetary reserves. The net lending to overseas is also the balance on current transactions in the overseas transactions account.

The *overseas transactions account* records all transactions of a current nature between Australian and overseas residents. Although this is an account for the overseas sector, the items are named from the Australian viewpoint. The account shows that Australia's current receipts from overseas consist of the value of Australia's exports of goods and services, property income received from overseas, transfers from overseas and withholding taxes from overseas. These receipts are used for Australia's imports of goods and services and payments of property income and transfers to overseas; the balance of current receipts represents net lending to overseas. Positive net lending to overseas corresponds to a surplus on current transactions with overseas, and negative net lending corresponds to a deficit. The transactions in property income shown in this account differ from estimates shown in balance of payments statistics because, in the national accounts, undistributed company income is not imputed to the beneficial owners. For this reason, net lending to overseas differs from the balance on current account shown in balance of payments statistics.

Estimates at constant prices

For certain kinds of intertemporal comparison, it is desirable to derive measures which attempt to remove the direct effect of price changes during the periods under review. Such estimates, conventionally described as 'at constant prices', are presented in Tables 2 and 5 (pages 537 and 539 respectively) for gross domestic product, exports and imports of goods and services, and gross national expenditure and its principal components.

Chapter 4 of *Australian National Accounts, Concepts, Sources and Methods* (5216.0) contains a discussion of the conceptual problems involved in making these estimates. Chapter 12 of that publication contains a brief account of the sources and methods used in preparing the estimates.

It should be noted that estimates at constant prices involve approximations and assumptions, and care must be taken in the interpretation and use of results.

Reliability and revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of statistical information, some of which is available quickly and some of which is available only after a delay of several years. Some of it is closely related to the desired national income concepts, but some of it is not completely satisfactory in various respects, including coverage, concepts and timing. Estimates, in particular for the most recent years, are therefore subject to revision. This applies particularly to estimates based on income tax statistics—income of companies, non-farm unincorporated enterprises, depreciation, and part of private gross fixed capital expenditure—which are subject to substantial revisions for the last one or two years because tabulations of income tax statistics become available progressively one to two years after the end of each financial year.

It is not possible to put precise limits on the degree of revision likely to any particular series, nor to state degrees of reliability in a statistical sense. These depend in large part on the range and quality of the basic statistical data.

National income and expenditure tables

NOTE. Items in all current price tables are numbered from 1 to 26, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts. In some cases the items correspond exactly, while in other cases an entry in one table is the sum of two or more entries in other tables; here the total is given a number, and the components have a number and a letter. In the remaining type of case all entries are given the same number and a distinguishing letter, because in this group one item is not the sum of one or more entries. The relationship between these items can still be traced through because the sum of all credit entries must equal the sum of all debit entries. A description of the numbered items can be found in *Australian National Accounts, Concepts, Sources and Methods* (5216.0).

The figures shown in Tables 1-6 are as published in *Budget Paper No. 10, National Income and Expenditure, 1983–84* (5213.0). The figures shown in Table 7 are consistent with those published in *Quarterly Estimates of National Income and Expenditure, Australia, June Quarter 1984* (5206.0).

TABLE 1
DOMESTIC PRODUCTION ACCOUNT
(**$ million**)

		1981–82	*1982–83*	*1983–84*
	Final consumption expenditure—			
1	Private	90,210	101,752	112,669
2	Government	25,356	29,080	32,092
	Gross fixed capital expenditure—			
3	Private	25,928	23,690	23,451
4	Public enterprises	6,166	8,027	8,387
5	General government	4,705	5,463	6,401
6	Increase in stocks	1,486	−2,565	1,196
7	Statistical discrepancy	1,333	1,664	3,728
	Gross national expenditure	*155,184*	*167,111*	*187,924*
8	Exports of goods and services	22,657	24,482	27,835
9	*Less* Imports of goods and services	28,563	27,993	30,302
	Expenditure on gross domestic product	**149,278**	**163,600**	**185,457**
10	Wages, salaries and supplements	83,268	92,161	97,920
	Gross operating surplus—			
	Trading enterprises—			
11*a*	Companies	16,492	17,156	22,751
11*b*	Unincorporated enterprises	16,332	15,146	19,089
11*c*	Dwellings owned by persons	11,589	14,151	16,667
11*d*	Public enterprises	3,111	3,625	4,638
11*e*	Financial enterprises	3,857	4,813	5,496
11*f*	*Less* Imputed bank service charge	3,809	4,595	5,190
	Gross domestic product at factor cost	*130,840*	*142,457*	*161,371*
12	Indirect taxes *less* subsidies	18,438	21,143	24,086
	Gross domestic product	**149,278**	**163,600**	**185,457**
	Gross farm product	7,386	5,717	9,119
	Gross non-farm product	141,892	157,883	176,338

TABLE 2
EXPENDITURE ON GROSS DOMESTIC PRODUCT AT AVERAGE 1979–80 PRICES
(**$ million**)

	1981–82	*1982–83*	*1983–84*
Final consumption expenditure—			
Private	75,287	76,349	78,292
Government	19,952	20,829	21,722
Gross fixed capital expenditure—			
Private	21,387	17,538	16,531
Public	8,619	9,465	9,772
Increase in stocks	1,272	−1,897	1,406
Statistical discrepancy	1,148	1,258	2,578
Gross national expenditure	*127,665*	*123,542*	*130,301*
Exports of goods and services	20,657	20,901	22,413
Less Imports of goods and services	25,320	22,863	24,193
Expenditure on gross domestic product	**123,002**	**121,580**	**128,521**
Gross farm product	7,680	6,147	8,405
Gross non-farm product	115,322	115,433	120,116

TABLE 3

NATIONAL INCOME AND OUTLAY ACCOUNT

($ million)

		1981–82	*1982–83*	*1983–84*
10	Wages, salaries and supplements	83,268	92,161	97,920
11*g*	Net operating surplus	36,696	38,019	49,994
	Domestic factor incomes	*119,964*	*130,180*	*147,914*
13	*Less* Net income paid overseas	2,559	3,242	4,006
12*a*	Indirect taxes	19,533	22,386	25,484
12*b*	*Less* Subsidies	1,095	1,243	1,398
	National income	*135,843*	*148,081*	*167,994*
14	*Less* Net transfers to overseas	426	455	468
15*g*	Withholding taxes from overseas	205	259	304
	National disposable income	**135,622**	**147,885**	**167,830**
	Final consumption expenditure—			
1	Private	90,210	101,752	112,669
2	Government	25,356	29,080	32,092
15 to 19, 26	Saving	20,056	17,053	23,069
	Disposal of income	**135,622**	**147,885**	**167,830**

TABLE 4

NATIONAL CAPITAL ACCOUNT

($ million)

		1981–82	*1982–83*	*1983–84*
11*h*	Depreciation allowances	10,876	12,277	13,457
	Saving—			
15	Increase in income tax provisions	−120	−341	791
16	Undistributed (company) income	826	−20	3,342
17	Retained income of public financial enterprises	427	449	452
18	Household saving	13,716	14,403	17,711
19	General government surplus on current transactions	5,207	2,362	773
26	Extraordinary insurance claims paid	..	200	..
	Finance of gross accumulation	**30,932**	**29,330**	**36,526**
	Gross fixed capital expenditure—			
	Private—			
3*a*	Dwellings	6,680	5,439	6,119
3*b*	Non-dwelling construction	4,972	4,891	4,027
3*c*	Equipment	14,276	13,360	13,305
4	Public enterprises	6,166	8,027	8,387
5	General government	4,705	5,463	6,401
	Total gross fixed capital expenditure	*36,799*	*37,180*	*38,239*
	Increase in stocks—			
6*a*	Private non-farm	731	−2,165	−513
6*b*	Public authority	332	448	220
6*c*	Farm	423	−848	1,489
7	Statistical discrepancy	1,333	1,664	3,728
21	Net lending to overseas	−8,686	−6,949	−6,637
	Gross accumulation	**30,932**	**29,330**	**36,526**

TABLE 5

GROSS FIXED CAPITAL EXPENDITURE AND INCREASE IN STOCKS AT AVERAGE 1979–80 PRICES

($ million)

	1981–82	*1982–83*	*1983–84*
Gross fixed capital expenditure—			
Private—			
Dwellings	5,296	3,911	4,213
Non-dwelling construction	3,928	3,401	2,662
Equipment	12,163	10,226	9,656
Total private	*21,387*	*17,538*	*16,531*
Public—			
Public enterprises	4,940	5,721	5,656
General government	3,679	3,744	4,116
Total public	*8,619*	*9,465*	*9,772*
Total	**30,006**	**27,003**	**26,303**
Increase in stocks—			
Private non-farm	619	−1,597	−300
Public authority	285	375	199
Farm	368	−675	1,507
Total	**1,272**	**−1,897**	**1,406**

TABLE 6

OVERSEAS TRANSACTIONS ACCOUNT

($ million)

		1981–82	*1982–83*	*1983–84*
9*a*	Imports f.o.b.	22,379	21,610	23,494
9*b*	Transportation	3,743	3,663	3,828
9*c*	Travel	1,696	1,857	2,022
9*d*	Government transactions	321	371	389
9*e*	Other goods and services	424	492	569
9	*Imports of goods and services*	*28,563*	*27,993*	*30,302*
13*a*	Property income to overseas	3,109	4,091	5,201
14*a*	Personal transfers overseas	491	600	583
14*b*	General government transfers overseas	733	803	874
21	Net lending to overseas	−8,686	−6,949	−6,637
	Use of current receipts	**24,210**	**26,538**	**30,323**
8*a*	Exports f.o.b.	19,083	20,656	23,725
8*b*	Transportation	2,095	2,182	2,289
8*c*	Travel	1,030	1,128	1,251
8*d*	Government transactions	161	194	208
8*e*	Other goods and services	288	322	362
8	*Exports of goods and services*	*22,657*	*24,482*	*27,835*
13*b*	Property income from overseas	550	849	1,195
14*c*	Personal transfers from overseas	798	920	944
14*d*	Extraordinary insurance claims	..	28	45
15*g*	Withholding taxes	205	259	304
	Current receipts from overseas	**24,210**	**26,538**	**30,323**

TABLE 7

MAIN AGGREGATES AT CURRENT PRICES, 1959–60 TO 1983–84

($ million)

	1	2	3	4	5	6	7 (1 to 6)
	Final consumption expenditure		*Private gross fixed capital*	*Public gross fixed capital*	*Increase in*	*Statistical*	*Gross national*
Year	*Private*	*Government*	*expenditure*	*expenditure*	*stocks*	*discrepancy*	*expenditure*
1959–60	9,049	1,302	2,191	1,214	168	−36	13,888
1960–61	9,601	1,409	2,415	1,256	478	−108	15,051
1961–62	9,887	1,528	2,328	1,380	−219	−190	14,714
1962–63	10,599	1,605	2,580	1,434	253	−160	16,311
1963–64	11,437	1,771	2,913	1,586	120	−152	17,675
1964–65	12,366	2,056	3,398	1,852	561	−31	20,202
1965–66	13,149	2,371	3,657	2,066	109	−85	21,267
1966–67	14,207	2,708	3,825	2,184	360	−187	23,097
1967–68	15,499	3,175	4,164	2,369	113	−326	24,994
1968–69	16,795	3,299	4,797	2,525	682	−159	27,939
1969–70	18,494	3,665	5,196	2,668	440	86	30,549
1970–71	20,421	4,196	5,869	2,855	446	4	33,791
1971–72	22,679	4,786	6,373	3,209	11	245	37,303
1972–73	25,430	5,450	6,762	3,393	−289	594	41,340
1973–74	30,013	6,842	7,833	3,884	1,171	1,668	51,411
1974–75	36,442	9,212	8,640	5,553	1,021	1,345	62,213
1975–76	43,508	11,452	10,412	6,590	138	717	72,817
1976–77	49,775	13,396	11,997	7,048	1,128	574	83,918
1977–78	55,170	15,116	12,842	7,884	−468	961	91,505
1978–79	62,168	16,747	15,169	8,115	1,271	465	103,935
1979–80	70,103	18,703	16,277	8,805	801	404	115,093
1980–81	79,319	22,151	21,377	10,127	414	1,472	134,860
1981–82	90,210	25,356	25,928	10,871	1,486	1,333	155,184
1982–83	101,752	29,080	23,690	13,490	−2,565	1,664	167,111
1983–84	112,669	32,092	23,451	14,788	1,196	3,728	187,924

	8	9	10 (7+8–9)	11	12	13	14
Year	*Exports of goods and services*	*Imports of goods and services*	*Gross domestic product*	*Gross domestic product at factor cost*	*National income*	*Household income*	*Wages, salaries and supplements*
1959–60	2,142	2,285	13,745	12,270	12,475	10,850	6,961
1960–61	2,166	2,601	14,616	13,045	13,218	11,659	7,500
1961–62	2,458	2,204	14,968	13,433	13,494	12,109	7,748
1962–63	2,481	2,610	16,182	14,539	14,590	12,900	8,202
1963–64	3,150	2,860	17,965	16,193	16,226	14,315	8,948
1964–65	3,035	3,473	19,764	17,804	17,854	15,660	10,035
1965–66	3,122	3,617	20,772	18,628	18,671	16,469	10,845
1966–67	3,468	3,695	22,870	20,597	20,552	18,252	11,850
1967–68	3,549	4,134	24,409	21,928	21,865	19,198	12,911
1968–69	3,877	4,268	27,548	24,807	24,754	21,587	14,303
1969–70	4,736	4,758	30,527	27,504	27,446	23,885	16,143
1970–71	5,032	5,092	33,731	30,443	30,460	26,754	18,532
1971–72	5,605	5,217	37,691	33,996	34,134	30,275	20,686
1972–73	6,944	5,348	42,936	38,694	39,091	34,743	23,097
1973–74	7,810	7,774	51,447	46,094	47,407	42,688	28,288
1974–75	9,921	10,227	61,907	55,259	57,185	53,128	36,324
1975–76	11,005	10,831	72,991	64,434	67,332	62,086	41,817
1976–77	13,206	13,788	83,336	73,601	76,706	70,942	47,173
1977–78	13,979	15,008	90,476	80,158	83,095	78,311	51,795
1978–79	16,502	17,784	102,653	90,680	94,305	87,332	55,663
1979–80	21,585	20,919	115,759	101,689	106,153	97,422	62,078
1980–81	22,002	24,750	132,112	115,974	121,000	111,245	71,983
1981–82	22,657	28,563	149,278	130,840	135,843	128,376	83 268
1982–83	24,482	27,993	163,600	142,457	148,082	142,938	92,161
1983–84	27,835	30,302	185,457	161,371	167,994	159,103	97,920

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CHAPTER 24

FOREIGN TRANSACTIONS

This chapter includes statistics of foreign trade, balance of payments, foreign investment by private investors; and foreign ownership and control of enterprises in Australia. Because of limitations of space, the statistics are mainly restricted to summarised form.

FOREIGN TRADE

Constitutional provisions and legislation

Constitutional provisions

By the Commonwealth of Australia Constitution Act, section 51 (1), the power to make laws with respect to trade and commerce with other countries was conferred on the Australian Parliament. Under section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution.

Commonwealth Government Legislation

Commonwealth Government legislation affecting overseas trade includes the *Customs Act* 1901, the *Customs Tariff Act* 1982 and the *Customs Tariff (Anti-Dumping) Act* 1975. The *Customs Tariff Act* 1982 provides the statutory authority for imposing the actual rates of duty operative from time to time, while the *Customs Tariff (Anti-Dumping) Act* 1975 provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first *Australian Customs Tariff* was introduced by Resolution on 8 October 1901, from which date uniform duties came into effect throughout Australia. The *Australian Customs Tariff* was developed in a period when Government industry policy was influenced by a desire to protect Australian industries from import competition. More recently however, Governments have held the view that for Australia to maximise its national income, it must encourage industries which are capable of operating under lower levels of protection. While customs collections are still a major source of revenue, the reliance on tariffs as an industry assistance measure is diminishing, with more emphasis being placed on measures which actively assist industry to improve its efficiency.

The Tariff has recently been simplified and it is anticipated that on 1 January 1987 Australia will introduce a new Tariff based on the Customs Co-operation Council Convention on the Harmonized Commodity description and Coding System.

The customs value of imported goods is established in accordance with the principles of Article VII of the General Agreement on Tariffs and Trade. This system is given effect by Section 154-Section 161 (D) of the Customs Act.

The system provides several methods of valuing goods for Customs purposes as provided in Section 157 (1)-Section 157 (8) .

In an unconditional role the customs value of imported goods will be based as far as possible on the transaction value method. This method provides for the acceptance of the price actually paid or payable to the vendor, provided sufficient and reliable information is available for this purpose.

This price may be subject to adjustments vide Section 154 (2) and Section 159 (3).

If there is no price paid or payable or the price is unacceptable the other valuation methods must be attempted sequentially.

Rates of duty. The *Customs Tariff Act* 1982 provides for three distinct types of rates—

General rates. These are set out in Schedule 3 to the Customs Tariff Act and apply to goods from all countries that do not qualify for either Special rates of duty or Concessional rates of duty for a particular tariff classification.

Special rates. These are set out in Schedule 3 to the Customs Tariff Act and apply to goods the produce or manufacture of specified countries being:

Forum Island Countries. These countries are set out in Part I of Schedule 1 to the Customs Tariff Act and preference is given to goods the subject of the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA).

Declared Preference Countries. These countries are set out in Part II of Schedule 1.

Developing Countries. Those countries are set out in Part III of Schedule 1.

Papua New Guinea. The rates of duty are set out in Schedule 3 and preference is given to goods the subject of the Papua New Guinea/Australia Trade and Commercial Relations Agreement (PATCRA). Wherever PNG is not mentioned in Schedule 3, goods take a FREE rate of duty.

New Zealand. The rates of duty are set out in Schedule 5 to the *Customs Tariff Act* 1982 and preference is given to goods the subject of the Australia/New Zealand Closer Economic Relations Agreement (CER). Wherever a tariff classification does not appear in relation to goods in Schedule 5 a FREE rate of duty shall apply.

Canada. The rates of duty are set out in Schedule 3 and preference is given to goods the subject of the Canada/Australia Trade Agreement (CANATA).

Concessional rates. The rates of duty are set out in Schedule 4 to the *Customs Tariff Act* 1982 --Part I, applies to Special Concessional rates of duty and is applicable to imports from all sources complying with particular ownership or other provisions.

Part II applies to Substituted Concessional rates of duty and is applicable to goods subject to tariff quotas.

For details on calculation of Dumping or Countervailing duties, see the *Customs Tariff (Anti-Dumping) Act* 1975 and the publication: *Anti-Dumping and Countervailing Information* which are available from Customs Houses in capital cities or from the Department of Industry and Commerce, Canberra, ACT 2600.

Import restrictions

Import controls, by global tariff quotas or import licensing, are introduced to assist local industry following inquiry and report by the Industries Assistance Commission and the Temporary Assistance Authority. At present the textile, clothing and footwear industries are assisted by tariff quotas while the motor vehicle industry had, until 31 December 1984 been assisted by import licensing. From 1 January 1985 the control of the motor vehicle industry was altered to tariff quotas. Import licensing firmly limits import quantities, provides for penal and seizure action and may be selectively applied to particular goods or countries. As such, it differs from global tariff quotas which allow imports up to a predetermined level, above which additional duties may be imposed. As part of the seven year quota control programme for textiles, clothing and footwear which commenced on 1 January 1982, a portion of quota is allocated by tender. Concessionary quotas are made available to imports from developing countries and allow for concessional entry of certain goods. The SPARTECA (South Pacific Trade and Economic Co-operation Agreement) quota also provides for concessional treatment of certain goods imported from Island Member Countries of the South Pacific Forum. Further information on import controls may be obtained from the Quota Control Branch of the Australian Customs Service, Department of Industry and Commerce, Edmund Barton Building, Barton, A.C.T.

Import prohibitions. Section 50 of the *Customs Act* 1901 provides that the Governor-General may, by regulation, prohibit the importation of goods into Australia and that this power may be exercised by:

(a) prohibiting the importation of goods absolutely;
(b) prohibiting the importation of goods from a specified place; or
(c) prohibiting the importation of goods unless specified conditions or restrictions are complied with.

Goods subject to these import controls are listed in the Customs (Prohibited Imports) Regulations.

Import prohibitions may also be imposed under the Quarantine Act; the Wildlife Protection (Regulation of Exports and Imports) Act; and sundry allied Commonwealth and State legislation.

Export controls

Export restrictions. Section 112 of the *Customs Act* 1901 provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia and that this power may be exercised by: (*a*) prohibiting the exportation of goods absolutely; (*b*) prohibiting the exportation of goods to a specified place; or (*c*) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations. Export prohibitions may also be imposed under the Export Control Act administered by the Department of Primary Industry; the Wildlife Protection (Regulation of Exports and Imports) Act administered by the Department of Home Affairs and Environment; the Quarantine Act; and sundry allied Commonwealth and State legislation.

Exchange control. Up to 25 June 1984, control over goods exported from Australia was maintained under the Banking (Foreign Exchange) Regulations to ensure that the full proceeds from the sale of such goods were received into the Australian banking system. However, as part of the general relaxation of exchange controls announced by the Government and applying from 25 June, controls in respect of export proceeds were removed completely.

Trade descriptions

The Commerce (Trade Descriptions) Act 1905. This Act, administered by the Australian Customs Service of the Department of Industry and Commerce, gives power to require the application of a proper trade description to certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and in relation to specified export commodities.

Trade promotion and incentives

Each year the Commonwealth Government through the Department of Trade undertakes an extensive overseas trade promotion and publicity program.

Trade displays, fairs and exhibitions

For many years Australia has organised or participated in numerous major trade fairs, exhibitions and displays throughout the world.

Initially, the emphasis was on participation in general trade fairs directed at the public and the general commercial community. However, with the development of specialised export promotion techniques and the greater diversity of goods available for export, emphasis is now being placed on individual Australian trade displays and participation in specialised trade shows directed almost entirely at the business community. In addition, display rooms in Trade Commissioner offices are currently in use in Singapore, Kuala Lumpur, Seoul, Hong Kong, Jakarta, Port Moresby, Suva, Bangkok, Wellington and Auckland. Limited display space is also available in Tokyo.

Trade missions

At present the following types of trade missions are in use:

Survey missions. These are organised to obtain precise knowledge about the export trade potential for specific products in one or more overseas markets. Such methods are used to explore export prospects in new or developing areas where commercial intelligence is not readily available or where a complex industry is involved and the industry requires special export knowledge.

Specialised and general trade missions. Arrangements are made for specific industries or groups of firms representing a number of industries to participate in a planned selling campaign in overseas markets with known sales potential. The mission visits the market, publicises its products, establishes agencies and negotiates sales.

Publications and advertising

The Department of Trade produces a range of English language and multi-lingual publications for distribution overseas through its Trade Commissioner posts. Special publications are produced for major Australian promotional activities overseas. The promotional activities are also supported by appropriate editorial publicity and advertising in foreign media publications.

Market advisory services

The Australian Government has established a Market Advisory and Preferences Section in the Department of Trade to advise and assist developing countries and countries with centrally planned economies in the marketing of their products in Australia. The Section, which is located in Canberra, is supported by two experienced Australian Trade Commissioners—one located in Sydney and the other in Melbourne—to maintain contact with the commercial sector and provide direct practical assistance.

To further assist developing countries the Government has established International Trade Development Centres in Sydney and Melbourne. The Centres house the local offices of the Market Advisory Service and provide a venue for small trade displays by developing countries as well as for other activities such as marketing seminars.

The Centres are operated by the Department of Trade and are funded under Australia's development assistance programme. From time to time short training courses on trade promotion topics are held at the Centres for officials from developing countries.

Export awards

The Department of Trade in conjunction with the Confederation of Australian Industry runs an annual program of Export Awards for Outstanding Export Achievement. In addition various other awards are also given from time to time.

Export incentives

The Commonwealth Government provides financial incentives to encourage exports. The Export Market Development Grants Act was introduced in 1974 and will operate until 30 June 1988. The scheme, administered by the Export Development Grants Board which is responsible to the Minister for Trade, is designed to encourage exporters and potential exporters to seek out and develop overseas markets. The scheme covers exporters of primary products, industrial goods, certain services including tourism, know-how and industrial property rights, whether the exporter is an individual, partnership, company or marketing organisation.

The scheme operates by way of taxable grants, to a maximum of $200,000 in respect of eligible expenditure incurred on overseas market research and development.

Overseas Trade Publicity Committee

The Overseas Trade Publicity Committee promotes products in areas where potential markets exist. Through the Committee, the Government contributes to members' promotional expenditure on the basis of 65 cents in the dollar. Members of the Committee are drawn from various marketing corporations and the Departments of Trade and Primary Industry.

Promotion of high technology products and services

The Department of Trade is continuing the special promotion of exports of high technology products and services. Audio-visual displays and prestige publications as well as a catalogue of Australian technology have been produced for use by Trade Commissioners and in general promotion.

Specialised Trade Commissioners are also being appointed to stimulate exports of selected advanced technology products and services (e.g. computer software, professional and scientific services).

Government authorities

Export Finance and Insurance Corporation

The Export Finance and Insurance Corporation (EFIC) was established by the Commonwealth Government in 1975 to provide Australian exporters with a specialised range of insurance, guarantee, indemnity and finance facilities not normally available from commercial sources. The EFIC took over the functions of the Export Payments Insurance Corporation which had been operating since 1956.

Australian Overseas Projects Corporation

The Australian Overseas Projects Corporation was established in November 1978 as a statutory authority of the Commonwealth Government to encourage the export of Australian goods and services. Its prime objective is to assist Australian consultancy and construction organisations to compete for contracts for overseas development projects, particularly those which are beyond the resources of individual firms and require a turnkey or multi-disciplinary approach, or require a government-to-government involvement. The Corporation's major functions are, on request, to act as prime contractor, consortium member or agent on behalf of Australian organisations. The Corporation also serves as a central point for dissemination of information on overseas project opportunities.

Trade relations

Trade policy

Australia is very reliant on international trade for its economic well-being. A substantial proportion of Australia's agricultural and mineral production is exported. Australia is a major world exporter of a range of commodities including coal, iron ore, bauxite, alumina, manganese, mineral sands, wool, meat, wheat and sugar. Imports, particularly capital equipment, play a vital role in the country's economic development. Consequently, Australia is dependent on a stable international trade and payments system to secure its general trading objectives.

Australia's fundamental trade policy objectives include:

- the maintenance of an open international trade and payments system
- the maintenance of an equitable framework of rules based on the principles of multilateralism, non-discrimination, predictability and transparency, and which provides for progressive trade liberalisation
- in relation to agricultural trade, fair and predictable access to major markets, restraints on subsidised competition in third markets and stability in commodity markets
- the maintenance of secure and stable markets for minerals and assistance in obtaining stable and remunerative prices for mineral exports.
- the promotion of employment through increased exports and in particular increased exports of manufacturers.

General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (GATT) is a multilateral treaty which provides the main framework of rules for the conduct of world trade. It also provides a forum in which countries can discuss and seek to overcome their trade problems as well as negotiate to enlarge world trading opportunities. The aim of the GATT is to liberalise world trade and place it on a secure basis, thereby contributing to economic growth and development.

The GATT entered into force in January 1948 with Australia being an original signatory. Since that date GATT membership has expanded to 90 countries, with a further 30 countries applying its rules on a de facto basis.

Seven rounds of multilateral negotiations to liberalise world trade have been held under the GATT, the most recent of which was the Tokyo Round (1973-1979). Concessions negotiated by member countries are incorporated in their 'Schedules of Concessions' which form an integral part of each country's obligations under the GATT. These concessions generally involve commitments not to increase tariffs on specific products above specified levels. The Tokyo Round negotiations also resulted in a number of agreements on non-tariff measures which clarified and expanded the existing rules of the GATT. These agreements included codes of conduct on subsidies and countervailing duties, government procurement, customs valuation, standards, import licensing, anti-dumping, trade in civil aircraft and a group of texts under the heading 'Framework for the Conduct of International Trade'. The latter includes texts which deal with reciprocity, more favourable treatment and fuller participation for developing countries, trade measures for balance of payments purposes, safeguard action for development purposes, consultation, dispute settlement and surveillance. There are also arrangements relating to bovine meat and dairy products.

All major developed countries have acceded to most of these agreements and Australia has already acceded or intends to accede to those on customs valuation, anti-dumping, import licensing, standards, subsidies, countervailing duties, the Framework texts and the arrangements on bovine meat and dairy products.

An important aspect of the GATT's work is to oversee the application of the trade rules established under its auspices. The main features of the General Agreement are:

- trade without discrimination; the guarantee of most-favoured-nation tariff treatment to all Contracting Parties
- agreement on commercial policy rules for international trade, including restrictions on the use of subsidies and quantitative restrictions
- provision of mechanism for consultations and dispute settlement
- safeguard, or emergency protection, provisions, enabling countries to apply temporary measures to industries seriously threatened by imports
- special recognition of the needs and capabilities of developing countries.

The highest body of GATT is the Session of Contracting Parties which usually meets annually. GATT decisions are generally arrived at by consensus, rather than vote, though two-thirds majority votes are required for the granting of 'waivers', (authorisations for members to depart from specific GATT obligations). Between Sessions of the contracting parties the Council of Representatives is authorised to act on both routine and urgent matters. The Council meets about six times a year.

In 1975 a Consultative Group of 18 comprising high level officials from key member countries was established to operate essentially as an executive steering group to assist GATT members carry out some of their major responsiblities more effectively.

The Committee on Trade and Development (CTD) reflects the GATT's increased focus on the problem of developing countries and has the duty of following all activities of GATT to ensure that problems of concern to developing countries are given priority attention. The CTD was formed after the introduction, in 1965, of Part IV of GATT which embodies commitments to individual and joint action by Contracting Parties, aimed at ensuring that the developing countries can increasingly find the means to raise living standards and promote rapid economic development through increased participation in international trade. This commitment has been elaborated by the Framework agreement enabling differential and more favourable treatment for developing countries, as a permanent legal feature of the world trading system.

A number of other committees have also been established to supervise implementation of the Tokyo Round agreements, examine the situation of countries using trade restrictions for balance of payments purposes, multi-fibre arrangements, anti-dumping practices and financial/administrative questions. Working parties are set up to deal with current questions, such as requests for accession, verification that agreements concluded by members are in conformity with GATT and to investigate disputes.

The developed country contracting parties to the GATT have introduced tariff preferences for developing country products under the Generalised System of Preferences (GSP).

The Australian System of Tariff Preferences for Developing Countries, in common with those of other donors, is a unilateral, non-reciprocal and non-contractual provision of specified preferential tariff advantages. Accordingly, Australia reserves the right at any time to modify, withdraw, suspend or limit the preferential treatment for any item or with respect to any beneficiary.

Australia's system of tariff preferences was introduced in 1966 (the first in the world) and has since been substantially revised and expanded through reviews in 1974, 1976 and 1979. On 1 January 1981 the system was further extended to include most textile, clothing and footwear products. Most dutiable manufactured and substantially processed primary products are now covered by the system. Margins of preference offered under the system are generally 10 to 15 per cent below the General Tariff rate. The system is currently undergoing a further major review by the Government.

The system is designed to assist developing countries to overcome their disadvantages in competing with other countries in the Australian market, providing always that such imports do not cause or threaten injury to Australian industry. A range of products where developing countries generally are already competitive on the Australian market are excluded from the system and preferences on a number of additional products have been withdrawn because of disruption to local industry. In some cases specific beneficiaries have been excluded from a preference.

Proposals for the addition or withdrawal of products from the system are referred to the Industries Assistance Commission for inquiry and report, usually within 45 days. This procedure gives all interested parties the opportunity to submit their views in evidence to a public inquiry.

Bilateral arrangements

West Europe—Although the European Community (EC) has formal trading arrangements with a large number of countries providing either free trade or preferential treatment, no such arrangement has been concluded with Australia.

In recent years Australia has experienced a large and growing trade deficit with the EC which has reflected an imbalance of trading opportunities. In the context of the Multilateral Trade Negotiations, finalised in 1979, Australia was able to negotiate with the EC improved access into Community markets for a number of agricultural products. However the benefits Australia expected to receive from these arrangements have not been fully realised due to EC policies.

Consideration by the Community of proposals for reform of the Common Agricultural Policy (CAP) is expected to be completed in 1984. While welcoming suggestions for CAP reform, Australia has expressed concern to the EC about proposals to further reduce access into the Community for imports of some agricultural products as part of the adaptation of the CAP.

While the bilateral relationship has been overshadowed by the operations of the CAP and agricultural issues, there is significant potential for developing Australia's role as a supplier of minerals and energy to the EC and in attracting increased European investment to resource based development projects in Australia.

The Government has indicated that it wishes to pursue a new and more constructive approach in order to improve the relationship with the EC. Senior Australian officials met with the EC Commission in July 1983 with this objective and further consultations at Ministerial level are planned.

Trade agreements

Asia

People's Republic of China—signed 1973. The Agreement provides, inter alia, for reciprocal most favoured nation treatment for imports, while recognising the preferential arrangements extended by both countries. The Agreement includes schedules of goods which each country is interested in exporting to the other. It also provides that exchanges of goods and technical services under contracts and agreements will be at reasonable international market prices; that payments in relation to trade will be in freely convertible currency; and that each country will promote the inter-change of trade representatives, groups, and delegations, and encourage the commercial exchange of industrial and technical expertise. The Agreement also established a Joint Trade Committee to further the aims of the Agreement. A protocol on Economic Co-operation to the Trade Agreement was signed in September 1981. The Protocol has the objective of notifying to enterprises and organisations of the two countries that their Governments have agreed on a range of industry and industry sectors regarded as holding prospects for co-operation between the two countries, and the form in which co-operation projects may be implemented. In 1984 an Agreement on Economic and Technical Co-operation in the iron and steel industry between Australia and China was signed. The main objective of the Agreement is to facilitate and promote economic and technical co-operation in trade in raw materials, iron and steel and related products, equipment and services, technology transfer and training.

Japan—signed 1957. The current Agreement on Commerce between Australia and Japan was initially signed in 1957, amended in 1963 and formally ratified on 27 May 1964. It provides for reciprocal most favoured nation treatment of imports while recognising the preferential arrangements of both countries; for certain commitments by Japan in regard to some important Australian export commodities including wool, soft wheat, sugar, canned meat, leather, butter and cheese; and for equal opportunity for Japanese products in relation to Commonwealth Government purchases from suppliers overseas. It also provides for close consultation between the two countries on matters relating to trade.

Republic of Korea—signed 1975. The current Agreement replaced an earlier Agreement entered into by Australia and the Republic of Korea in 1965. The present Agreement states that the two governments are to take all appropriate measures to facilitate, strengthen, and diversify bilateral trade in accordance with the General Agreement on Tariffs and Trade; recognises the need to improve the conditions of world commodity trade; declares support in principle for international commodity agreements, and expresses support in principle for the conclusion of long-term commercial contracts between organisations and enterprises of the two countries. The Agreement also established a Joint Trade Committee to further the aims of the Agreement.

Philippines—signed 1975. The current Agreement replaces an earlier Agreement entered into in 1965. Provides, inter alia, for reciprocal most favoured nation treatment of imports from either country; recognises preferential agreements of both countries; encourages Australian investment and joint ventures in the Philippines. Provides for a Joint Commission to meet annually, or more frequently if required. The Agreement entered into force in May 1979.

Thailand—signed 1979. Provides, inter alia, for strengthening and diversification of bilateral trade; supports trading arrangements among ASEAN countries; supports international commodity agreements; encourages economic, commercial and industrial co-operation, including investment in Joint Ventures. Provides for a Joint Trade Committee to meet annually or as required.

Socialist Republic of Vietnam—signed in 1974. Provides, inter alia, for reciprocal most favoured nation treatment for imports and expresses support for the principle of long-term commercial contracts.

Indonesia—signed 1972. The current Agreement replaced an earlier Agreement signed in 1959. It provides, inter alia, for reciprocal most favoured nation treatment of imports; expresses support for trade initiatives and arrangements among member countries of the Association of South East Asian Nations (ASEAN); declares support in principle for international commodity agreements and encouragement for Australian commercial investment in Indonesia and provides for consultations as required on trade matters.

Malaysia—signed 1958. The Agreement provides for each country to accord preferences to the other on certain specified goods. The exchange of these preferences was placed on a more flexible basis by an Exchange of Letters on 21 February 1975. The Agreement further provides for protection of Malaysia's tin and rubber exports to Australia and of Australia's wheat exports to Malaysia against dumped or subsidised competition. The agreement also assures Malaysia that Australian tariff or import licensing treatment of natural rubber will be the same as for synthetic rubber.

Pacific

New Zealand—The Closer Economic Relations Trade Agreement, which came into operation on 1 January 1983, is designed to complete the process to free trade between Australia and New Zealand which was commenced under the New Zealand Australia Free Trade Agreement. Remaining tariffs and quantitative restrictions on goods traded between Australia and New Zealand are to be progressively eliminated by 1995 at the latest under conditions of fair competition.

The Agreement also addresses other factors affecting trans-Tasman trade such as export incentives, government purchasing and investment policies, and provides a framework for the harmonisation of matters such as standards, technical specifications and restrictive trade practices. A general review of the operation of the Agreement is scheduled for 1988.

Papua New Guinea—The Papua New Guinea-Australia Trade and Commercial Relations Agreement (PATCRA) which came into force in 1977 provides, inter alia, that subject to certain exceptions, trade between Australia and Papua New Guinea shall be free of duties and other restrictions.

Pacific Islands—The South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA) which came into force in January 1980 provides, inter alia, that Australia will progressively provide duty free and unrestricted access for as wide a range of Forum Island country products as possible.

Americas

Canada—signed 1960. The Canada/Australia Trade Agreement (CANATA) was updated by an Exchange of Letters in 1973 to incorporate preferences derived from Australia's Trade Agreement with the United Kingdom and to provide greater flexibility in the administration of preferential tariff arrangements.

Brazil—signed 1978. The Agreement represented a significant development in strengthening trade and economic links between Australia and Brazil. It basically confirms GATT rights and obligations and emphasises industrial co-operation including investment. A significant feature is the ten year initial life of the Agreement to cover long term commodity contracts. It also establishes a Joint Consultative Committee.

Europe

East Europe—The development of Australia's trade relations with the countries of East Europe began as part of a policy of market diversification in the mid-1960s. Since 1965 Australia has signed trade agreements with Yugoslavia and all East European centrally planned economies (CPEs), except Albania.

Australia's trade agreement with the USSR (signed in 1965) provides for reciprocal most favoured nation (MFN) treatment. A supplementary agreement on the Development of Trade and Economic Relations was signed in 1973. This agreement provides for the encouragement and facilitation of trade; industrial and technical co-operation; support for international commodity agreements; and the establishment of a Mixed Commission on Trade and Economic Co-operation to meet once in every two years. At the third session of the Mixed Commission in 1976, a Working Group on Trade in Machinery and Equipment was established to promote two-way trade in machinery and equipment. In 1983/84, committees comprised of Commonwealth and State officials and businessmen were established in each of New South Wales, Queensland, Victoria and Western Australia to advise on the development of Australia/USSR trade.

Australia's trade agreement with Yugoslavia (signed in 1970) provides for mutual exchange of MFN treatment under the GATT, mutual encouragement of economic and technical co-operation and consultations upon request. The agreement does not provide for meetings of a Mixed Commission but informal meetings are held periodically.

Australia's trade agreements with Poland (signed in 1966, with a supplementary agreement signed in 1978), Czechoslovakia (signed in 1972), German Democratic Republic (GDR) (signed in 1974 with a supplementary protocol signed in 1977), Hungary and Bulgaria (both signed in 1974) and Romania (signed in 1975) are all broadly similar in their provisions. All of the agreements provide for the establishment of, and regular meetings of (usually every two years) a Mixed Commission or Joint Trade Committee; and either confirm reciprocal MFN treatment, as in the trade agreements with the GDR and Bulgaria; or acknowledge that trade will be in accordance with the rights and obligations of both countries under GATT, as in the trade agreements with Czechoslovakia, Hungary, Poland and Romania. The agreements also provide for the encouragement and facilitation of trade, and industrial and technical co-operation, and the negotiation of long term commercial contracts as well as support for international commodity agreements.

Other Europe

Cyprus—signed 1983. This agreement provides a basis for the strengthening and diversification of trade and encouragement and facilitation of commercial and technical co-operation between Australia and Cyprus.

Italy—an Economic and Commercial Co-operation Agreement was signed 1984. This agreement provides for the continuing expansion of mutually beneficial economic and commercial relations between Australia and Italy.

Middle East

Bahrain—The Agreement on Trade, Economic and Technical Co-operation was signed in May 1979. The Agreement expresses the intention of the two Governments to develop and expand trade and economic relations by the establishment of a Joint Committee, the facilitation of joint ventures in the two countries, and encouraging the exchange of technology and technical expertise between commercial enterprises.

Iraq—The Agreement on Trade, Economic and Technical Co-operation was signed in March 1980. The Agreement provides, inter alia, for the exchange of most favoured nation treatment between Australia and Iraq, encouragement of the negotiation of commercial contracts between relevant organisations and commercial enterprises and the establishment of a Joint Governmental Commission.

Saudi Arabia—The Agreement on Economic and Technical Co-operation was signed in March 1980 and provides for the facilitation of joint ventures in each country, encouraging the exchange of scientific and technological research, and the establishment of a Joint Commission.

Oman—signed 1981. The Agreement on Trade, Economic and Technical Co-operation expresses the intention of the two governments to develop and expand trade and economic relations. Provides for the facilitation of joint ventures in the two countries and encourages the exchange of technology and technical expertise. The Agreement also established a Joint Commission.

Kuwait—signed 1982. The Agreement on Economic and Technical Co-operation expresses the intention of the two Governments to develop and expand trade and economic relations. Provides for the facilitation of joint ventures in the two countries and encourages the exchange of technology and technical expertise and establishes a Joint Committee.

Others

India—signed 1976. The Agreement confirms that trade between the two countries shall be conducted in accordance with the provisions of GATT. It provides for encouragement and co-operation between India and Australia and establishes a Joint Trade Committee to meet annually and review the operation of the Agreement and advance its objectives.

Trade services

Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. A brief account of the establishment and growth of the Trade Commissioner Service before the 1939-45 War is available in Year Book No. 51, page 496. Since the War the Service has increased steadily; by mid 1984 there was an establishment of 166 Trade Commissioners and Assistant Trade Commissioners in Australia and at 54 posts in 44 countries.

Trade Commissioners are responsible for providing commercial intelligence in their territories in the fields of manufactured goods, rural commodities, resources, energy and technical and allied services. Particular facilities provided for Australian exporters and export organisations include: surveying market prospects; advising on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advising and assisting business visitors; helping to organise and carry through trade missions, trade displays, newspaper supplements, and other promotion and publicity media; providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods and services and helping to attract desirable investment.

In some countries Trade Commissioners also participate in inter-governmental negotiations in the resources and commercial fields. In certain countries where there is no diplomatic or consular mission, Trade Commissioners are called upon to act as the Australian government representative.

Trade Commissioners and Assistant Trade Commissioners are drawn from both private enterprise and the public service. Applications for entry are invited periodically by public advertisement.

The Trade Commissioner Service is administered by the Department of Trade (as distinct from the diplomatic and consular services administered by the Department of Foreign Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to that mission and to hold an appropriate diplomatic or consular rank—Minister (Commercial), Counsellor (Commercial) or First or Second Secretary (Commercial).

The countries where Australian Trade Commissioner posts are located are shown in the following list. Except where indicated the missions are located in capital cities only. Algeria; Argentina; Austria; Bahrain; Belgium; Brazil (Rio de Janeiro); Britain; Canada (Vancouver, Toronto, Ottawa); China, People's Republic; Egypt, Arab Republic of; Fiji; France; Germany, Federal Republic of; Hong Kong; India; Indonesia; Iran; Iraq; Israel; Italy (Rome, Milan); Japan (Tokyo, Osaka); Kenya; Korea, Republic of; Kuwait; Malaysia; Mexico; Netherlands; New Zealand (Wellington, Auckland); Papua New Guinea; Philippines; Saudi Arabia (Jeddah, Riyadh); Singapore; South Africa (Johannesburg); Spain; Sweden; Switzerland (Geneva); Thailand; United Arab Emirates; United States of America (Washington DC, Chicago, Houston, Los Angeles, New York, San Francisco); U.S.S.R.; Venezuela; Yugoslavia, Socialist Federal Republic of.

Full details of the Australian Trade Commissioner posts are available from the Department of Trade, Canberra, A.C.T. 2600.

Australian Trade Correspondents and Marketing Officers

Detached Australian Trade Correspondents and Marketing Officers supplement the work of the Trade Commissioner in whose territory they are located. Correspondents are situated in various locations throughout the world.

Trade representation in Australia

Details of Trade Representatives in Australia are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600.

Collection and presentation of statistics

Source of data

Foreign trade statistics are compiled by the Australian Bureau of Statistics from documentation submitted by exporters and importers or their agents to the Australian Customs Service as required by the Customs Act.

Scope of the statistics

The statistics presented below are, with one exception, recorded on a *general trade* basis, i.e., total exports include both Australian produce and re-exports, and total imports comprise goods entered directly for domestic consumption together with goods imported into Customs warehouses. The statistics of import clearances, however, are recorded on a *special trade* basis, i.e., clearances comprise goods entered directly for domestic consumption together with goods cleared into the domestic market from Customs warehouses.

Exports of Australian produce are goods, materials or articles which have been produced, manufactured or partly manufactured in Australia, except goods which were originally imported and have undergone only repair or minor operations which leave them essentially unchanged.

Re-exports are goods, materials or articles originally imported which are exported either in the same condition in which they were imported or after undergoing repair or minor operations which leave them essentially unchanged. Minor operations include blending, packaging, bottling, cleaning, sorting, husking or shelling.

Total exports are the aggregate of exports of Australian produce and re-exports.

The following are excluded from recorded trade statistics:

(a) direct transit trade, i.e., goods being trans-shipped or moved through Australia for purposes of transport only;
(b) migrants' and passengers' effects exported or imported; and parcels post exports and imports of small value, for which Customs entries are not required;
(c) certain materials under inter-governmental agreements for defence and similar projects for which Customs entries are not required;
(d) vessels and aircraft engaged in the transport of passengers or goods between Australia and other countries;
(e) the sale or purchase of any vessel and/or aircraft intended for use on overseas routes;
(f) fish and other sea products landed in Australia or abroad directly from the high seas by Australian vessels;
(g) entries lodged on informal clearance documents (ICD) for values not exceeding $250;
(h) export consignments where the value of the goods in each transaction is less than $250.

and for imports only:

(i) bunkers and stores supplied to vessels and aircraft prior to arrival in Australia.

Exports ships' and aircraft stores. Prior to July 1982 bunkers and stores supplied to foreign owned vessels and aircraft prior to departure overseas were excluded from export statistics but were published separately as ships' and aircraft stores statistics. The United Nations Statistical Commission has recommended (International Trade Statistics, *Concepts and Definitions*, United Nations Statistical Papers, Series M, No 52, Revision 1, 1982) that such bunkers and stores be included in total exports statistics. Accordingly, commencing with July 1982 statistics, these commodities have been classified according to the appropriate AECC items. As a result, from July 1982 total export statistics and commodity statistics which include stores for foreign ships and aircraft are not strictly comparable with data for earlier periods.

Statistical period

Exports. Exports are recorded statistically in the month in which the entries are both finalised by the Australian Customs Service and passed to the ABS for further processing. Regular exporters or their agents may provide details of their export shipments on a periodic rather than an individual shipment basis by submitting weekly or monthly returns. These 'periodic returns' must be submitted to the Australian Customs Service within seven days of the end of the period in question covering all shipments during that period. All other exporters are required to report each individual shipment prior to the ship's departure. Approximately 90 per cent of monthly export values are recorded on periodic returns. The statistical month for Customs outports (generally ports other than those at which the main Customs Office in each State is located) closes on the twenty-first of each month, whereas for mainports the statistical month is the calendar month. Because of these factors export statistics for a particular month do not necessarily represent all of the commodities actually exported during that month. Analysis of past data has shown that in aggregate approximately 40 per cent of export trade by value for a particular month reflects actual shipments during that month, 55 per cent by value was actually exported during the previous month with the remaining 5 per cent by value exported in earlier months. For individual commodities the percentage by value representing actual exports in a month may vary considerably.

Imports. Imports are recorded statistically in the calendar month in which the import entries were both finalised by the Australian Customs Service and passed to the ABS for further processing. Import entries may be lodged early using the check-to-arrive system or the documents may be delayed because of various validation checks carried out by Customs prior to the entries being passed to the ABS. Import statistics for a particular month do not necessarily represent entries lodged or commodities actually imported during the month in question. Analysis of past data has shown that in aggregate approximately 70 per cent of import trade by value recorded for a particular month was actually imported during that month, 25 per cent was actually imported during the previous month with the remaining 5 per cent being imported in earlier months. For individual commodities the percentage by value representing actual imports in a month may vary considerably.

State

From 1 July 1978, *State* statistics for exports comprise State of origin of Australian produce and State of final shipment of re-exported goods. State of origin is defined as the State in which the final stage of production or manufacture occurs. Previously *State* was the State in which the export document was lodged with the Australian Customs Service. Because of this change, figures from 1 July 1978 are not directly comparable with those for previous periods.

For imports the State is that in which the import entry was lodged with the Australian Customs Service. The port of lodgement of the import entry is not necessarily the port of discharge of the goods or of final consumption. Goods forwarded interstate after import, whether in containers or not, are recorded as being imported at the port of lodgement of the import entry.

Valuation

Exports. Goods actually sold to overseas buyers prior to shipment are valued at the free-on-board (f.o.b.) Australian port of shipment equivalent of the actual price at which the goods were sold. Goods shipped on consignment are valued at the f.o.b. Australian port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods are dispatched for sale. The recorded value of exports includes the value of the outside package, other than international containers used for containerised cargo.

Imports. The recorded value of imports is the customs value (formerly referred to as the value for duty). On 30 November 1981, Australia changed its system of valuation from the Brussels Definition of Value (BDV) to the GATT Agreement on Customs Valuation. The Agreement reflects one of a number of trade related codes of conduct established during the round of Multi-lateral Trade Negotiations (MTN) concluded in 1979. The GATT Agreement differs from the Brussels Definition of Value in that it offers a set of practical rules on the valuation of imports rather than a list of conceptual guidelines. Under the Agreement the primary basis for establishing the customs value is the price actually paid or payable, provided a number of conditions are met. The most important condition is that the buyer and seller must be independent of each other. If the conditions are not met the practical rules are used to determine the customs value. The recording of the value of imports remains on a free-on-board (f.o.b.) basis (i.e. the charges and expenses involved in delivering the goods from the place of exportation to Australia are excluded). The recorded value also continues to include the value of outside packages, other than international containers used for containerised cargo. The change in the basis of valuation is expected to have a negligible effect on value and duty import statistics. For details of the method of valuation used prior to 30 November 1981, *see* Year Book No. 66, page 633.

Merchandise exports and imports

In accordance with standards recommended by the United Nations: Merchandise exports are defined as all goods which subtract from the stock of material resources in Australia as a result of their movement out of the country. Merchandise exports, therefore, exclude goods exported with the reasonable expectation of re-import within a limited time. A complete list of commodities not included in merchandise trade is shown under section 9 (b) of the *Australian Export Commodity Classification* (AECC) (1203.0). These include, for example, coin being legal tender and goods for temporary exhibition outside Australia;

Merchandise imports are defined as all goods which add to the stock of material resources in Australia as a result of their movement into the country. Merchandise imports, therefore, exclude goods imported with the reasonable expectation of re-export within a limited time. A complete list of commodities not included in merchandise trade is shown under Section 9 (b) of the *Australian Import Commodity Classification* (AICC) (1204.0). These include, for example, coin being legal tender and goods for temporary exhibition in Australia.

Goods excluded from merchandise trade are for convenience termed non-merchandise and such trade is shown separately in some tables. Total trade is the sum of merchandise and non-merchandise.

Classification changes affecting the levels of merchandise and non-merchandise trade were introduced on 1 July 1983, in accordance with recommendations of the United Nations Statistical Commission (International Trade Statistics, *Concepts and Definitions,* United Nations Statistical Papers, Series M, No. 52, Revision 1, 1982). As a result, statistics of exports and imports, from July 1983, under Sections 9 (a) and 9 (b) of the AECC and AICC are not comparable with previous years. The changes do not affect Sections 0 to 8 of the classifications, nor total trade. Further information about the changes was given in the 1983-84 editions of the AECC and AICC, or may be obtained from the ABS Trade and Shipping Section in Canberra.

Commodity classification

Exports and imports are classified according to the items of the AECC and AICC respectively, which, from 1 July 1978, have been based on the *Standard International Trade Classification*, Revision 2 (United Nations Statistical Papers, Series M, No. 34, Revision 2, 1975). Copies of, or extracts from these classifications may be obtained from offices of the ABS in Canberra and in each capital city.

Australian Standard Commodity Classification

The Australian Standard Commodity Classification (ASCC) has been developed by the ABS to enable users to compare statistics of commodities produced in Australia with statistics of commodities imported and exported.

The ASCC manual (1207.0 and 1208.0) links production, import and export items at their most detailed level of comparability in the form of standard (ASCC) commodity items. In a large number of cases, however, due to the differences between production, import and export items, comparability is only achieved at fairly broad aggregate levels. In the ASCC, commodities are grouped under industries (as defined in the Australia Standard Industrial Classification (ASIC)) in which they are typically produced. (Refer Chapter 17, Manufacturing and Internal Trade)

ASIC industry of origin

Export and import statistics are classified according to Subdivisions of the *Australian Standard Industrial Classification* (ASIC). The statistics are compiled by allocating statistical items of the AECC and AICC to the ASIC industry of origin with whose main economic activities the commodities are primarily associated. A full description of ASIC classes is contained in the publication *Australian Standard Industrial Classification,* Vol. 1—*The Classification* (1201.0).

Broad economic categories

Exports and imports of merchandise are classified according to the nineteen categories of the United Nations classification, *Broad Economic Categories* (BEC). The BEC attempts to classify external trade statistics for the purposes of general economic analysis according to the main end use of the commodities traded.

Country

A country is defined as a geographical entity which trades, or has the potential to trade, with Australia in accordance with Australian Customs provisions. External territories under Australian administration *are* treated separately whilst self-governing territories and dependent territories under the administration of other countries *may* be treated as individual countries in Australian foreign trade statistics. *Exports:* for exports, *country* refers to the country to which the goods were consigned at the time of export. Where the country of consignment is not determined at the time of export, goods are recorded as exported *For orders* and in those cases where it was found to be impossible to determine the destination, as *Destination unknown. Imports:* for imports, *country* refers to the country of origin of the goods which is defined as the country of production for Customs purposes.

Quantity data

Where quantities are shown they are generally expressed in terms of the normal unit of quantity used in the appropriate industry and as specified in the AECC and AICC published by the ABS. Quantities are not tabulated in respect of statistical items for which there is no appropriate unit of quantity (e.g. a statistical item which covers a number of commodities that cannot be recorded under a single unit of quantity).

Excess of exports or imports

The excess of the value of exports or imports does not represent the balance of trade. The balance of trade is the excess of exports or imports on a *balance of payments* basis. Details of the adjustments (relating to coverage, timing and valuation) made to total recorded exports and imports for balance of payments purposes, are set out in the annual publication *Balance of Payments, Australia* (5303.0). Some information may be found in the section relating to the balance of payments.

Treatment of confidential data

To ensure that information about the activities of particular businesses is not disclosed it is necessary to restrict the release of statistics of certain commodities. These restrictions do not affect total export or import figures but they can affect statistics at all levels of the Australian Export and Import Commodity Classifications.

Foreign trade statistics

Total foreign trade

The following table shows the total trade of Australia with foreign countries from 1978–79 to 1983–84.

FOREIGN TRADE

($m)

Year	*Exports*	*Imports*	*Excess of exports (+) or imports (−)*
1978–79	14,241	13,752	+ 489
1979–80	18,871	16,218	+2,653
1980–81	19,177	18,965	+ 212
1981–82	19,575	23,005	−3,430
1982–83	22,062	21,806	+ 256
1983–84(p)	24,805	24,063	+ 742

The following table shows particulars of merchandise and non-merchandise trade for recent years.

MERCHANDISE AND NON-MERCHANDISE TRADE

($m)

EXPORTS

Year	*Merchandise*	*Non-merchandise*	*Total*
1978–79	14,071	170	14,241
1979–80	18,606	265	18,871
1980–81	18,949	228	19,177
1981–82	19,294	281	19,575
1982–83	21,393	669	22,062
1983–84(p)	24,058	747	24,805

IMPORTS

Year	*Merchandise*	*Non-merchandise*	*Total*
1978–79	13,651	101	13,752
1979–80	16,045	173	16,218
1980–81	18,790	175	18,965
1981–82	22,769	236	23,005
1982–83	21,216	590	21,806
1983–84(p)	23,552	511	24,063

Diagrams on the following pages show the foreign trade of Australia, 1962-63 to 1983-84 and the value of exports and imports, proportions by country, 1979-80 to 1983-84.

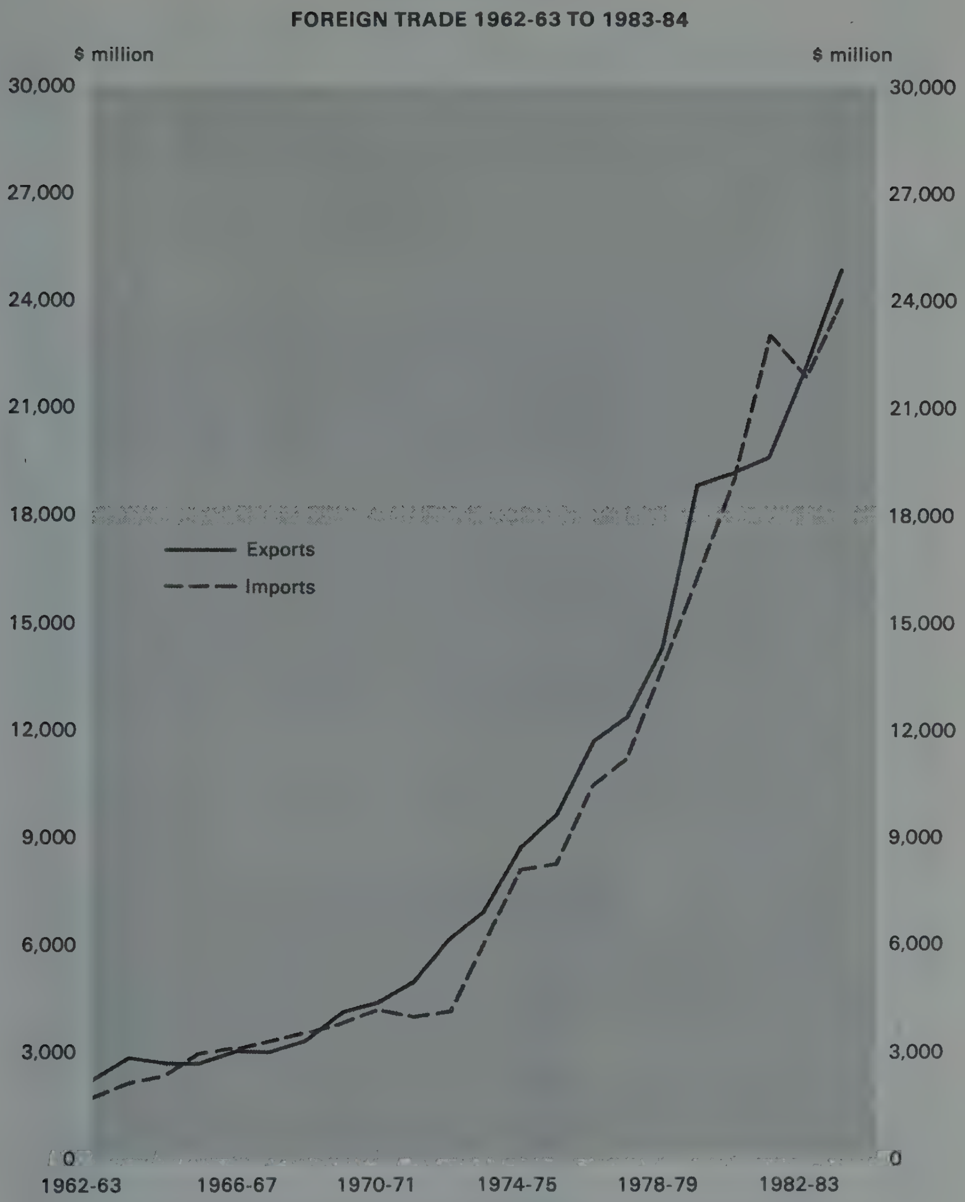
FOREIGN TRADE 1962-63 TO 1983-84
$ million
$ million
30,000
27,000
24,000
21,000
18,000
15,000
12,000
9,000
6,000
3,000
0
Exports
Imports
1962-63
1966-67
1970-71
1974-75
1978-79
1982-83

PLATE 47

VALUE OF EXPORTS AND IMPORTS, AUSTRALIA, PROPORTIONS BY COUNTRY 1979-80 TO 1983-84

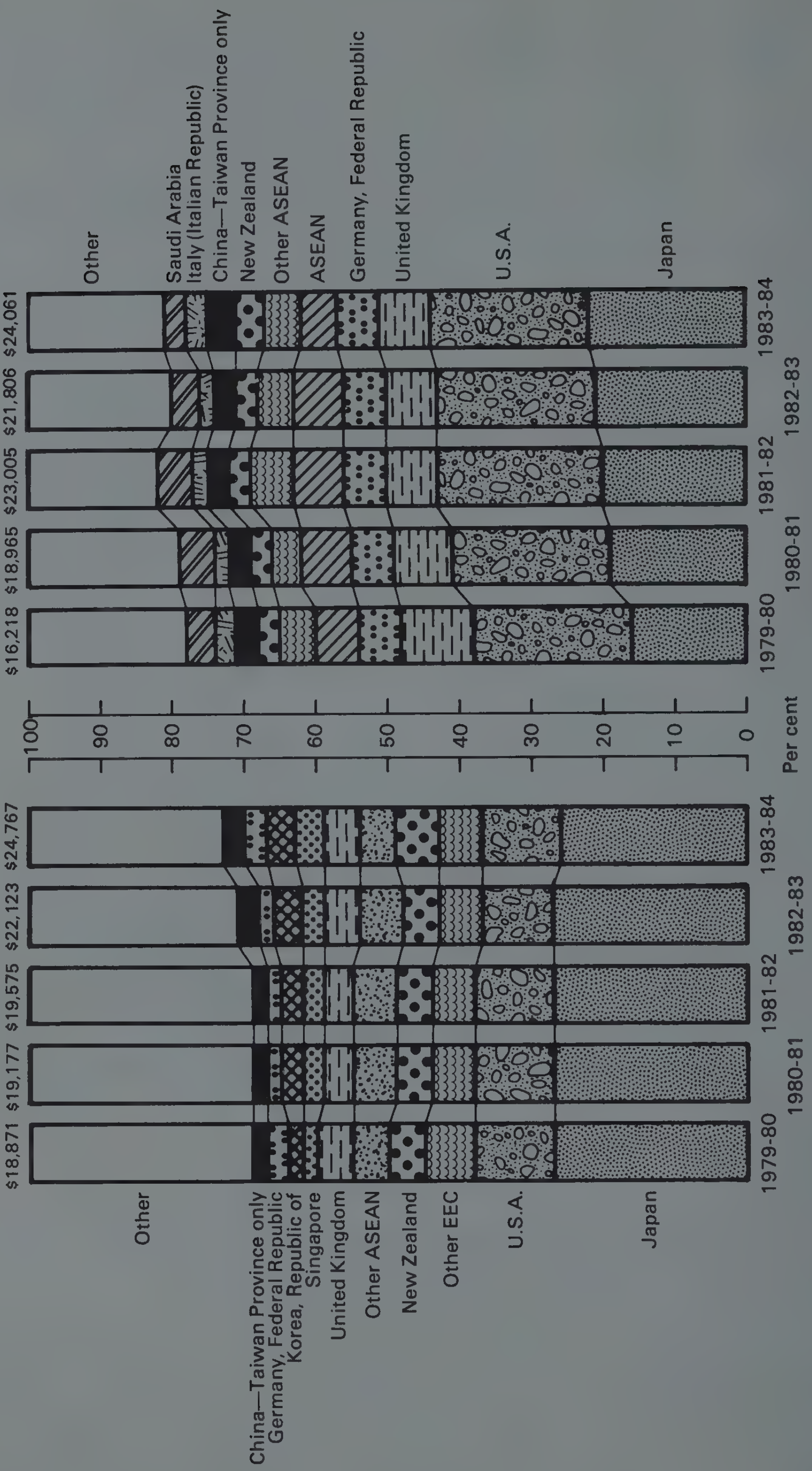

PLATE 48

Classified summary of Australian foreign trade

The following table shows exports and imports according to divisions of the Australian Export and Import Commodity Classifications (based on the *Standard International Trade Classification* Revision 2).

EXPORTS AND IMPORTS: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS

($'000)

Division No.	*Description*	*Exports*			*Imports*		
		1981–82	*1982–83*	*1983–84(p)*	*1981–82*	*1982–83*	*1983–84(p)*
00	Live animals	227,626	236,029	246,846	33,308	27,509	36,575
01	Meat and meat preparations	1,380,856	1,677,927	1,394,511	10,137	14,731	14,099
02	Dairy products and birds' eggs	301,059	328,368	366,226	45,626	58,690	67,915
03	Fish and fish preparations	308,523	357,244	394,403	213,183	216,369	260,547
04	Cereals and cereal preparations	2,495,776	1,855,712	2,710,022	31,168	38,269	46,846
05	Fruit and vegetables	205,697	239,779	226,207	147,537	170,122	224,814
06	Sugar, preparations, honey	793,725	581,107	647,955	14,169	14,560	17,746
07	Coffee, tea, cocoa and spices	31,387	36,273	38,616	187,114	218,147	264,461
08	Feeding stuff for animals	44,426	63,976	108,644	21,646	39,018	29,710
09	Miscellaneous food preparations	13,746	17,477	22,045	28,239	38,183	52,612
11	Beverages	39,378	52,169	58,735	103,545	100,471	105,759
12	Tobacco and tobacco manufactures	10,632	14,502	14,632	69,455	83,336	90,364
21	Hides, skins and furskins, raw	217,494	232,489	268,841	2,979	2,452	3,228
22	Oil seeds, oil nuts and oil kernels	15,061	10,320	15,154	13,558	15,316	23,006
23	Crude rubber (including synthetic and reclaimed)	2,136	2,471	3,174	56,773	47,201	62,905
24	Wood, timber and cork	184,872	183,210	220,025	206,916	164,163	227,734
25	Pulp and waste paper	1,437	3,151	4,110	97,520	81,554	98,119
26	Textile fibres and their waste	1,888,544	1,926,338	2,057,104	90,427	76,410	103,641
27	Crude fertilisers and minerals (except coal, petroleum and precious stones)	84,463	98,935	123,175	222,788	197,099	172,803
28	Metaliferous ores and metal scrap	(*a*)3,375,812	(*b*)3,753,393	(*b*)4,109,712	33,803	16,509	16,366
29	Crude animal and vegetable materials n.e.s.	52,539	55,880	53,904	44,733	47,716	54,325
32	Coal, coke and briquettes	2,295,593	3,079,742	3,320,801	2,011	5,275	4,186
33	Petroleum and petroleum products	551,188	1,152,921	1,401,160	2,999,916	3,092,463	2,198,601
34	Petroleum gases and other gaseous hydrocarbons	316,715	343,119	502,061	653	678	1,326
41	Animal oils and fats	82,020	78,543	93,504	799	727	636
42	Fixed vegetable oils and fats	7,550	1,679	5,001	53,483	49,094	62,485
43	Animal and vegetable oils, fats and waxes, processed	5,774	6,835	6,870	25,689	31,687	47,981
51	Chemical elements and compounds	44,275	45,217	45,198	(*c*)495,445	(*d*)468,301	(*e*)605,700
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	(*f*)43,692	(*f*)39,079	(*f*)43,928	258,978	232,419	181,565
53	Dyeing, tanning and colouring materials	(*g*)18,852	(*g*)20,296	(*g*)20,792	88,593	78,008	101,345
54	Medicinal and pharmaceutical products	88,454	108,418	118,529	155,301	193,356	221,239
55	Essential oils and perfume materials; toilet and cleansing preparations	30,807	33,744	38,344	102,022	106,108	133,335
56	Fertilisers, manufactured	4,521	4,324	8,825	62,070	89,557	125,638
57	Explosives and pyrotechnic products	7,837	8,142	7,576	13,038	9,299	15,777
58	Plastic materials, regenerated cellulose and artificial resins	90,466	112,896	127,652	(*h*)430,304	(*i*)364,228	(*i*)485,504
59	Chemical materials, n.e.s.	73,372	85,792	89,979	221,853	234,782	280,971
61	Leather, leather manufactures, n.e.s. and dressed furskins	34,168	47,650	52,436	43,770	45,537	82,522
62	Rubber manufactures, n.e.s.	10,956	10,985	12,334	287,232	244,916	301,993
63	Wood and cork manufactures (excluding furniture)	6,835	7,907	6,843	106,206	93,779	118,020
64	Paper, paperboard and manufactures	51,067	46,760	53,943	556,809	484,069	615,516
65	Textile yarn, fabrics, made-up articles	138,885	155,860	148,032	1,095,230	(*j*)1,011,440	(*k*)1,302,735
66	Non-metallic mineral manufactures n.e.s.	114,468	110,151	152,899	(*l*)410,056	(*m*)368,533	423,367
67	Iron and steel	439,202	483,516	416,975	577,710	550,026	435,890
68	Non-ferrous metals	994,490	1,251,419	1,530,329	136,768	93,370	99,492
69	Manufactures of metal, n.e.s.	193,888	178,161	208,447	(*n*)642,211	(*o*)554,262	(*q*)605,230
71	Machinery, other than electric	98,377	127,722	186,455	747,288	676,151	586,528
72	Electrical machinery and apparatus	170,129	179,316	179,569	(*s*)1,481,421	(*t*)1,078,795	(*t*)1,151,180
73	Transport equipment	23,497	28,812	30,580	227,322	174,089	145,740
74	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s.	154,882	157,448	175,975	(*u*)1,213,422	(*v*)1,151,660	(*v*)1,146,585
75	Office machines and automatic data processing equipment	70,881	88,617	118,107	733,401	818,992	1,141,066

For footnotes *see* end of table

EXPORTS AND IMPORTS: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS—*continued*

($'000)

Division No.	*Description*	*Exports*			*Imports*		
		1981–82	*1982–83*	*1983–84(p)*	*1981–82*	*1982–83*	*1983–84(p)*
76	Telecommunications and sound recording and reproducing apparatus and equipment	39,845	71,803	51,382	710,763	808,025	965,959
77	Electrical machinery, apparatus and appliances, n.e.s. and electrical parts thereof	111,124	116,840	145,025	(*w*)996,195	(*w*)973,519	(*w*)1,124,971
78	Road vehicles (including air cushion vehicles)	196,415	229,656	267,883	1,969,016	1,807,382	2,303,271
79	Other transport equipment	234,276	132,653	185,172	1,277,704	533,475	750,056
81	Sanitary, plumbing, heating and lighting fixtures and fittings	5,260	7,064	8,531	41,972	40,751	44,989
82	Furniture	13,340	13,148	18,783	129,009	112,374	144,553
83	Travel goods, handbags, etc.	834	1,840	2,273	78,631	88,998	107,261
84	Clothing and accessories; articles of knitted or crocheted fabric	13,234	16,774	16,497	392,326	389,821	425,415
85	Footwear	3,742	4,159	5,201	143,604	144,704	160,335
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	110,251	133,706	147,442	437,637	437,988	511,175
88	Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks	103,469	131,706	148,799	(*x*)391,195	(*x*)373,677	(*x*)402,441
89	Miscellaneous manufactured articles	151,190	167,197	163,128	1,066,477	1,145,472	1,323,466
9A	Commodities and transactions not classified according to kind	(*y*)472,707	(*z*)645,713	(*z*)711,189	(*aa*)290,730	(*ab*)390,132	(*ac*)691,943
	Total merchandise(ad)	*19,293,719*	*21,394,076*	*24,058,485*	*22,768,879*	*21,215,744*	*23,551,563*
9B	Non-merchandise(*ae*)	281,487	667,547	746,757	235,806	590,434	511,334
	Total	**19,575,206**	**22,061,623**	**24,805,243**	**23,004,685**	**21,806,179**	**24,062,896**

(*a*) Excludes AECC items 287.31.00, 287.70.01, 287.93.07 and 287.99.09. (*b*) Excludes AECC items 287.31.00, 287.70.00, 287.93.07 and 287.99.19. (*c*) Excludes AICC items 513.79.13; and 513.90.17 from 1.3.82. (*d*) Excludes AICC items 513.79.13 and 513.90.15. (*e*) Excludes AICC items 511.13.01 from 1.10.83; 511.40.01 from 1.1.84; 513.79.13 and 513.90.15. (*f*) Excludes AECC item 522.49.00. (*g*) Excludes AECC item 533.10.00. (*h*) Excludes AICC items 582.70.04; and 582.70.06 until 31.5.82. (*i*) Excludes AICC item 582.70.04. (*j*) Excludes AICC item 651.95.06 from 1.11.82. (*k*) Excludes AICC item 651.95.06. (*l*) Excludes AICC item 661.20.01. (*m*) Includes AICC item 661.20.01 from 1.3.83. (*n*) Excludes AICC items 694.01.02 and 695.39.60. (*o*) Excludes AICC items 691.10.05 from 1.5.83; 694.01.02 and 695.39.60. (*q*) Excludes AICC items 691.10.05, 694.01.02 and 695.39.60. (*s*) Excludes AICC item 723.30.01 from 1.9.81. (*t*) Excludes AICC item 723.30.01. (*u*) Excludes AICC items 749.10.46 and 749.10.56. (*v*) Excludes AICC items 749.10.70 and 749.10.76. (*w*) Excludes AICC item 775.86.01. (*x*) Excludes AICC item 881.11.45. (*y*) Includes AECC items 287.31.00, 287.70.01, 287.93.07, 287.99.09, 522.49.00 and 533.10.00. (*z*) Includes AECC items 287.31.00, 287.70.00, 287.93.07, 287.99.19, 522.49.00 and 533.10.00. (*aa*) Includes AICC items 513.79.13, 513.90.17 from 1.3.82; 582.70.04, 582.70.06 until 31.5.82; 661.20.01, 694.01.02, 695.39.60, 723.30.01 from 1.9.81; 749.10.46, 749.10.56, 775.86.01 and 881.11.45. (*ab*) Includes AICC items 513.79.13, 513.90.15, 582.70.04, 651.95.06 from 1.11.82; 661.20.01 until 28.2.83; 691.10.05 from 1.5.83; 694.01.02, 695.39.60, 723.30.01, 749.10.70, 749.10.76, 775.86.01 and 881.11.45. (*ac*) Includes AICC items 511.13.01 from 1.10.83; 511.40.01 from 1.1.84; 513.79.13, 513.90.15, 582.70.04, 651.95.06, 691.10.05, 694.01.02, 695.39.60, 723.30.01, 749.10.70, 749.10.76, 775.86.01 and 881.11.45. (*ad*) The sum of Divisions 00 to 9A. (*ae*) A complete description of non-merchandise items is contained in the *Australian Export Commodity Classification* (1203.0) and the *Australian Import Commodity Classification* (1204.0).

EXPORTS OF MAJOR COMMODITIES

Commodity	Unit of quantity	Quantity			Value ($'000)		
		1981–82	*1982–83*	*1983–84(p)*	*1981–82*	*1982–83*	*1983–84(p)*
Aluminium and alloys, unwrought	tonnes	144,316	197,035	254,680	165,829	226,654	417,641
Aluminium oxide and hydroxide	"	6,170,209	5,729,426	6,887,885	1,092,110	1,073,534	1,262,541
Barley	"	1,576,876	834,374	3,111,060	241,344	131,371	498,489
Butter	"	6,728	15,565	30,052	19,185	41,140	58,124
Cars, passenger motor, assembled and unassembled		..	..	..	69,039	79,885	114,085
Cheese	tonnes	57,505	54,451	54,592	122,866	133,479	139,562
Coal (anthracite, bituminous and sub-bituminous) (except briquettes)	"	46,121,434	54,645,595	64,011,964	2,289,632	3,072,528	3,311,411
Copper, ore and concentrates	"	136,652	225,271	221,414	54,926	83,565	97,994
Copper, refined, unwrought	"	42,063	71,093	76,697	60,233	114,546	126,890
Crustaceans and molluscs (except canned or bottled)		..	..	..	269,424	308,599	350,953
Flour (wheaten) plain white	tonnes	54,917	54,684	31,148	13,969	14,441	8,008
Fruit, fresh and nuts, fresh or dried	"	148,831	162,201	138,694	108,124	129,938	117,259
Fruit, preserved and fruit preparations		..	..	..	67,003	70,831	60,005
Hides, bovine and equine (except calf and kip skins)	tonnes	125,301	133,439	107,405	108,946	133,395	161,443
Iron and steel ingots and other primary forms	"	602,060	600,734	427,062	117,950	120,714	86,602
Iron ore and concentrates (except roasted iron pyrites)	"	74,501,861	66,760,797	83,275,681	1,252,155	1,487,474	1,618,930
Iron, pig and cast	"	47,910	367,306	219,780	5,088	26,516	20,158
Lead and lead alloys (including silver-lead) unwrought	"	326,975	341,187	369,018	263,566	301,521	309,900
Meat, fresh, chilled or frozen, beef—boneless	"	488,746	531,549	416,816	944,914	1,153,463	1,049,852
Meat, fresh, chilled or frozen—bovine animals, other	"	50,734	74,689	34,748	83,642	135,455	70,882
Meat, fresh, chilled or frozen—edible offals	"	45,519	48,116	34,652	51,382	60,285	46,039
Meat, fresh, chilled or frozen—sheep, lambs and goats	"	150,133	172,635	93,226	212,175	236,017	143,043
Milk and cream	"	101,461	99,503	116,315	144,370	140,433	152,342
Nickel and nickel alloys, unwrought		n.p.	n.p.	n.p.	116,818	149,481	135,038
Nickel matte and speiss		n.p.	n.p.	n.p.	258,270	227,801	173,258
Petroleum products		..	..	..	551,188	1,152,894	1,197,917
Rice	tonnes	596,515	404,957	245,591	195,423	120,257	91,949
Skins, sheep and lamb, with wool on	"	66,427	60,998	61,238	76,641	69,540	80,425
Sorghum, unmilled	"	1,270,964	444,962	772,138	152,843	53,861	110,702
Sugar—from cane (except icing sugar)	"	2,497,363	2,547,718	2,354,330	764,325	557,423	621,197
Titanium and zirconium ore and concentrates (except beneficiated ilmenite)	"	1,540,497	1,351,487	1,730,764	126,778	117,524	142,687
Wheat (including spelt) and meslin, unmilled	"	10,912,459	8,235,092	10,560,447	1,719,737	1,377,601	1,819,861
Wood chips	"	4,013,450	2,079,985	2,418,508	167,024	165,578	205,187
Wool, carbonised—shorn and skin	"	11,312	9,530	13,769	50,322	37,389	63,447
Wool, carded or combed (tops and other)	"	13,516	16,226	13,780	78,352	97,990	77,397
Wool, greasy	"	497,566	487,344	497,538	1,470,601	1,469,665	1,572,313
Wool, washed and scoured—shorn, skin and boiled	"	52,312	46,052	53,232	236,900	205,452	252,828
Zinc, ore and concentrates	"	536,495	683,011	795,960	115,276	145,803	185,874
Zinc and zinc alloys, unwrought	"	208,431	231,671	229,590	167,287	184,133	228,669
Total major commodities		..	..	..	*14,005,657*	*15,405,176*	*17,180,902*
Total Exports		..	..	..	**19,575,206**	**22,061,623**	**24,805,243**

EXPORTS BY AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION

($ million)

ASIC Divisions/Subdivisions	*1981–82*	*1982–83*	*1983–84(p)*
Agriculture, forestry, fishing and hunting—			
Agriculture	4,016.2	3,494.8	4,506.4
Forestry and logging	4.2	6.6	3.5
Fishing and hunting	17.4	13.4	11.9
Total	*4,037.8*	*3,514.8*	*4,521.7*
Mining—			
Metallic	1,943.0	2,368.1	2,585.1
Coal	2,291.6	3,074.8	3,314.6
Oil and gas	316.7	343.1	705.3
Construction materials	0.3	0.2	1.6
Other non-metallic minerals	94.4	115.5	169.3
Total	*4,646.0*	*5,901.8*	*6,775.9*
Manufacturing –			
Food, beverages and tobacco	3,687.0	3,821.4	3,747.5
Textiles	549.9	618.0	634.5
Clothing and footwear	18.1	20.5	24.2
Wood, wood products and furniture	204.9	203.3	245.6
Paper, paperboard, printing and publishing	94.3	103.0	116.1
Chemical, petroleum and petroleum products	903.2	1,558.5	1,641.4
Non-metallic mineral products	46.5	43.1	50.1
Basic metal products	2,890.1	3,245.5	3,767.9
Fabricated metal products	174.8	159.7	177.6
Transport equipment	499.9	439.1	585.5
Other machinery and equipment	854.9	1,002.1	1,096.2
Miscellaneous manufacturing	215.1	214.3	227.9
Total	*10,138.8*	*11,428.5*	*12,314.6*
Other industries—			
Wholesale and retail trade, business services	26.0	34.5	21.0
Waste and scrap n.e.s., secondhand goods	445.2	514.5	425.3
Total	*471.2*	*549.0*	*446.2*
Total merchandise	*19,293.7*	*21,394.1*	*24,058.5*
Non-merchandise	281.4	667.5	746.8
Total	**19,575.2**	**22,061.6**	**24,805.2**

IMPORTS BY AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION

($ million)

ASIC Divisions/Subdivisions	*1981–82*	*1982–83*	*1983–84(p)*
Agriculture, forestry, fishing and hunting—			
Agriculture	293.5	317.1	374.2
Forestry and logging	2.4	2.3	2.1
Fishing and hunting	4.8	4.9	5.5
Total	*300.7*	*324.3*	*381.8*
Mining-			
Metallic	24.2	8.4	5.5
Coal	0.2	2.6	2.6
Oil and gas	1,815.5	1,892.7	981.4
Construction materials	9.1	8.4	10.8
Other non-metallic minerals	208.2	186.7	157.4
Total	*2,057.3*	*2,098.8*	*1,157.7*
Manufacturing—			
Confidential items falling within ASIC classes 0124 to 2963 incl.	..	10.4	4.8
Food, beverages and tobacco	774.0	870.2	1,050.6
Textiles	1,093.9	1,030.7	1,321.8
Clothing and footwear	578.7	561.4	617.1
Wood, wood products and furniture	443.8	371.6	492.8
Paper, paperboard, printing and publishing	960.8	901.5	1,097.9
Chemical, petroleum and petroleum products	2,821.2	2,824.9	3,151.9
Non-metallic mineral products	372.6	335.6	378.5
Basic metal products	766.7	722.6	628.3
Confidential items falling within ASIC classes 3141 to 3487 incl.	1.5	0.1	—
Fabricated metal products	686.0	576.8	600.3
Transport equipment	3,495.4	2,546.5	3,290.2
Other machinery and equipment	6,790.9	6,423.1	7,134.4
Miscellaneous manufacturing	1,265.5	1,216.4	1,501.9
Total	*20,051.2*	*18,391.8*	*21,270.6*
Other industries			
Wholesale and retail trade, business services	89.7	77.2	89.2
Waste and scrap n.e.s., secondhand goods	270.1	323.6	652.4
Total	*359.7*	*400.8*	*741.5*
Total merchandise	*22,768.9*	*21,215.7*	*23,551.6*
Non-merchandise	235.8	590.4	511.3
Total	**23,004.7**	**21,806.2**	**24,062.9**

EXPORTS AND IMPORTS BY BROAD ECONOMIC CATEGORIES

Broad Economic Category	Exports				Imports			
	1982–83		1983–84(p)		1982–83		1983–84(p)	
	$million	Proportion to total	$million	Proportion to total	$million	Proportion to total	$million	Proportion to total
FOOD AND BEVERAGES	5,184.1	23.5	5,900.5	23.8	939.4	4.3	1,172.8	4.9
Primary	2,135.9	9.7	3,028.5	12.2	292.0	1.3	355.5	1.5
Mainly for industry	1,643.5	7.4	2,494.9	10.1	119.3	0.5	140.7	0.6
Mainly for household consumption	492.4	2.2	533.6	2.2	172.7	0.8	214.9	0.9
Processed	3,048.2	13.8	2,872.1	11.6	647.4	3.0	817.3	3.4
Mainly for industry	744.4	3.4	835.7	3.4	94.2	0.4	151.9	0.6
Mainly for household consumption	2,303.9	10.4	2,036.4	8.2	553.2	2.5	665.4	2.8
INDUSTRIAL SUPPLIES n.e.s.	9,325.5	42.3	10,474.5	42.2	5,444.4	25.0	6,404.2	26.6
Primary	4,991.2	22.6	5,541.8	22.3	386.3	1.8	398.1	1.7
Processed	4,334.3	19.6	4,932.7	19.9	5,058.1	23.2	6,006.1	25.0
FUELS AND LUBRICANTS	4,563.9	20.7	5,213.6	21.0	3,062.5	14.0	2,110.9	8.8
Primary	3,072.6	13.9	3,514.7	14.2	1,894.6	8.7	982.7	4.1
Processed	1,491.4	6.8	1,698.9	6.8	1,167.8	5.4	1,128.1	4.7
Motor spirit	172.5	0.8	164.3	0.7	144.1	0.7	76.0	0.3
Other	1,318.9	6.0	1,534.5	6.2	1,023.8	4.7	1,052.2	4.4
CAPITAL GOODS (except transport equipment), and parts and accessories thereof	991.5	4.5	1,045.6	4.2	5,425.9	24.9	5,663.1	23.5
Capital goods (except transport equipment)	680.1	3.1	694.7	2.8	3,760.2	17.2	4,006.3	16.6
Parts and accessories	311.4	1.4	350.9	1.4	1,665.7	7.6	1,656.8	6.9
TRANSPORT EQUIPMENT and parts and accessories thereof	471.7	2.1	628.6	2.5	2,778.6	12.7	3,513.9	14.6
Passenger motor cars(*a*)	17.4	0.1	25.9	0.1	449.6	2.1	505.8	2.1
Other	81.7	0.4	130.7	0.5	986.5	4.5	1,478.2	6.1
Industrial	53.7	0.2	100.7	0.4	833.1	3.8	1,260.7	5.2
Non-industrial	28.0	0.1	30.0	0.1	153.4	0.7	217.5	0.9
Parts and accessories (*a*)	372.7	1.7	472.0	1.9	1,342.5	6.2	1,529.9	6.4
CONSUMER GOODS n.e.s	419.9	1.9	463.0	1.9	3,212.7	14.7	4,036.4	16.8
Durable	105.2	0.5	107.5	0.4	1,049.6	4.8	1,547.7	6.4
Semi-durable	82.2	0.4	94.8	0.4	1,359.3	6.2	1,558.5	6.5
Non-durable	232.4	1.1	260.8	1.1	803.8	3.7	930.2	3.9
GOODS n.e.s.	437.3	2.0	332.6	1.3	352.4	1.6	650.2	2.7
Total merchandise	*21,394.1*	*97.0*	*24,058.5*	*97.0*	*21,215.7*	*97.3*	*23,551.6*	*97.9*
Non-merchandise	667.5	3.0	746.8	3.0	590.4	2.7	511.3	2.1
Total	**22,061.6**	**100.0**	**24,805.2**	**100.0**	**21,806.2**	**100.0**	**24,062.9**	**100.0**

(*a*) Unassembled road motor vehicles are included with parts and accessories of transport equipment.

Direction of Foreign Trade

Exports and imports, by country of consignment or of origin

The following table shows the value and percentage of Australian exports and imports according to principal country of consignment or origin. The proportions of Australian exports and imports by country of origin or consignment are shown graphically on Plate 48 on page 556.

AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY COUNTRY OR COUNTRY GROUP OF CONSIGNMENT OR ORIGIN

($'000)

Country	Exports			Imports		
	1981–82	1982–83	1983–84(p)	1981–82	1982–83	1983–84(p)
Argentina (Argentine Republic)	70,516	38,008	57,614	11,988	6,319	9,734
Association of South-East Asian Nations—						
Indonesia, Republic of	416,744	384,893	395,877	515,885	561,376	299,741
Malaysia	438,127	480,010	469,332	187,718	214,502	257,182
Philippines, Republic of the	194,270	187,579	141,768	88,130	84,118	92,073
Singapore, Republic of	512,885	732,144	951,515	652,302	599,843	470,172
Thailand, Kingdom of	134,113	176,366	218,306	72,215	89,436	122,080
Total ASEAN	*1,696,139*	*1,960,992*	*2,176,798*	*1,516,250*	*1,549,275*	*1,241,249*

AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY COUNTRY OR COUNTRY GROUP OF CONSIGNMENT OR ORIGIN—*continued*

($'000)

	Exports			*Imports*		
Country	*1981–82*	*1982–83*	*1983–84(p)*	*1981–82*	*1982–83*	*1983–84(p)*
Austria, Republic of	2,046	2,624	9,194	52,068	54,906	57,795
Bahrain, State of	68,091	93,179	93,431	76,774	40,138	90,763
Bangladesh, People's Republic of	41,776	17,180	108,055	17,060	14,361	22,791
Brazil, Federal Republic of	20,126	38,464	51,064	136,298	154,735	177,252
Canada	362,879	285,892	315,277	584,925	434,663	459,518
China—excl. Taiwan Province	602,528	643,792	608,435	284,728	278,926	311,623
—Taiwan Province only	445,258	553,705	706,456	631,952	649,597	854,207
Czechoslovakia (Czechoslovak Socialist Republic)	37,649	27,907	32,621	32,507	20,426	21,637
Egypt, Arab Republic of	335,874	385,243	390,267	153	112	4,405
European Economic Community—						
Belgium-Luxembourg	129,896	165,650	163,645	135,169	124,546	161,613
Denmark, Kingdom of	14,133	22,593	30,972	82,781	77,619	101,158
France (French Republic)	400,007	495,395	482,422	628,051	454,765	514,167
Germany, Federal Republic of	465,280	548,610	720,509	1,355,670	1,298,625	1,384,625
Greece (Hellenic Republic)	15,549	41,822	20,406	18,264	18,803	20,578
Ireland (Irish Republic)	1,987	2,205	2,950	71,958	97,179	99,226
Italy (Italian Republic)	393,276	368,315	479,440	506,950	538,320	748,526
Netherlands, Kingdom of the	210,288	297,471	329,219	357,799	303,542	336,278
United Kingdom of Great Britain and Northern Ireland	726,376	1,178,684	1,134,210	1,649,187	1,466,957	1,740,161
Total EEC	*2,356,792*	*3,120,745*	*3,363,774*	*4,805,829*	*4,380,356*	*5,106,331*
Fiji	159,775	175,101	189,945	20,494	23,347	31,730
Finland, Republic of	10,654	34,970	24,717	135,689	108,428	149,515
Hong Kong	436,932	349,691	612,004	500,351	485,308	552,176
India, Republic of	312,129	211,512	140,758	118,779	142,288	119,376
Iran, Islamic Republic of	145,076	231,945	293,085	58,738	39,687	3,499
Iraq, Republic of	179,470	108,516	172,879	3,026	1,729	6,421
Israel, State of	32,342	53,585	24,913	60,402	57,984	68,839
Japan	5,351,389	5,964,716	6,570,041	4,527,427	4,506,447	5,366,190
Jordan, Hashemite Kingdom of	22,690	9,920	13,492	161	4,116	6,337
Korea, Republic of	681,013	829,330	940,823	300,625	292,856	382,699
Kuwait, State of	117,030	131,853	129,791	261,066	354,386	437,024
Libyan Arab/Jamahiriya, Socialist People's	43,028	22,699	31,430	–	–	3
Mauritius	19,908	20,373	15,914	603	1,225	1,035
Mexico (United Mexican States)	31,418	10,156	16,315	29,742	30,080	31,146
New Caledonia	38,161	47,699	32,302	1,424	793	2,210
New Zealand	1,035,856	1,155,472	1,400,821	726,178	694,293	921,748
Norway, Kingdom of	48,410	168,208	58,944	57,873	33,839	58,877
Oman, Sultanate of	28,685	30,207	38,992	41,474	46,796	28,600
Pakistan, Islamic Republic of	58,019	55,353	54,867	48,154	23,521	31,280
Papua New Guinea	420,126	508,321	494,387	69,909	69,042	76,679
Poland (Polish People's Republic)	71,754	69,624	117,803	15,229	10,369	12,103
Portugal (Portuguese Republic)	31,813	19,251	24,049	20,293	19,853	23,098
Romania, Socialist Republic of	26,617	8,918	45,464	17,588	57,956	5,394
Saudi Arabia, Kingdom of	362,530	351,882	391,596	1,193,137	976,780	679,923
South Africa, Republic of	145,539	144,533	279,680	90,701	84,944	132,131
Spain (Spanish State)	82,055	73,549	94,818	71,596	65,095	91,151
Sri Lanka, Democratic Socialist Republic of	34,426	22,208	25,149	12,217	11,305	12,804
Sweden, Kingdom of	57,406	34,116	37,511	321,567	277,859	342,686
Switzerland (Swiss Confederation)	20,883	32,869	57,900	213,619	197,277	229,166
Turkey, Republic of	21,314	19,514	32,850	4,004	4,339	7,011
Uganda, Republic of	2,064	571	382	6,993	6,949	13,815
United Arab Emirates	137,931	136,882	163,463	263,609	394,027	267,183
United States of America	2,154,515	2,240,286	2,704,744	5,249,284	4,766,435	5,188,392
U.S.S.R.	666,213	506,952	581,756	8,637	12,314	12,094
Venezuela, Republic of	23,186	17,669	1,490	754	24	7,698
Yemen Arab Republic	53,127	22,437	4,991	–	–	6
Yemen, People's Democratic Republic of	28,510	34,989	42,465	–	–	–
Yugoslavia, Socialist Federal Republic of	50,687	67,141	38,464	16,447	14,210	20,526
Zimbabwe	4,247	5,808	3,994	4,233	3,470	3,417
Other countries	295,778	865,281	865,711	376,777	397,550	376,486
'For Orders' and Country of origin or destination unknown	92,826	99,785	121,557	5,353	5,444	5,123
Total	**19,575,206**	**22,061,623**	**24,805,243**	**23,004,685**	**21,806,179**	**24,062,896**

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)

($'000)

Division No.	Description	*ASEAN*		*Belgium-Luxembourg*		*Canada*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	Live animals	11,480	–	–	–	–	2,155
01	Meat and meat preparations	54,014	133	4,346	–	46,694	98
02	Dairy products and birds' eggs	96,028	–	–	243	346	–
03	Fish, crustaceans and molluscs, and preparations thereof	10,956	53,725	892	11	806	22,685
04	Cereals and cereal preparations	378,766	3,750	4,344	356	154	759
05	Vegetables and fruit	44,044	15,207	1,411	493	28,622	9,670
06	Sugar, sugar preparations and honey	126,387	308	51	95	86,288	372
07	Coffee, tea, cocoa, spices and manufactures thereof	15,779	71,994	–	642	74	–
08	Feeding stuff for animals (not including unmilled cereals)	7,113	18,673	1,496	137	389	12
09	Miscellaneous edible products and preparations	6,421	5,351	–	413	63	406
11	Beverages	5,535	169	84	53	2,598	856
12	Tobacco and tobacco manufactures	367	3,062	–	7	–	880
21	Hides, skins and furskins, raw	513	1	403	–	26	24
22	Oilseeds and oleaginous fruit	31	650	89	–	47	182
23	Crude rubber (including synthetic and reclaimed)	492	36,607	–	2,430	–	347
24	Cork and wood	405	66,342	2,371	–	44	46,866
25	Pulp and waste paper	544	–	–	–	29	23,265
26	Textile fibres (other than wool tops) and their wastes (not manufactured into yarn or fabric)	25,199	916	40,931	559	1,283	7,441
27	Crude fertilisers and crude minerals (excluding coal, petroleum and precious stones)	11,813	1,140	1,528	338	28	39,579
28	Metalliferous ores and metal scrap	86,813	1,081	50,047	11	39,649	2,528
29	Crude animal and vegetable materials, n.e.s.	3,079	6,088	437	16	664	1,120
32	Coal, coke and briquettes	20,174	4	25,275	–	–	95
33	Petroleum, petroleum products and related materials	287,181	440,458	–	558	7	264
34	Gas, natural and manufactured	–	779	–	1	–	–
41	Animal oils and fats	6,571	–	1,922	–	36	–
42	Fixed vegetable oils and fats	112	9,151	–	–	–	8,333
43	Animal and vegetable oils and fats, processed, and waxes of animal or vegetable origin	1,665	33,826	42	3	26	–
51	Organic chemicals	3,506	3,916	3	5,808	10	6,222
52	Inorganic chemicals	13,621	950	–	1,623	23	1,487
53	Dyeing, tanning and colouring materials	6,615	262	2	1,243	234	1,226
54	Medicinal and pharmaceutical products	15,741	3,128	198	2,021	2,363	3,728
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	10,277	679	1	4,122	34	2,714
56	Fertilisers, manufactured	310	66	–	548	–	20,447
57	Explosives and pyrotechnic products	1	38	–	–	–	1,414
58	Artificial resins and plastic materials, and cellulose esters and ethers	8,476	5,731	15	5,210	88	11,866
59	Chemical materials and products, n.e.s.	11,569	12,425	117	3,163	206	1,664
61	Leather, leather manufactures, n.e.s., and dressed furskins	1,630	1,630	71	211	616	298
62	Rubber manufactures, n.e.s.	2,069	12,802	9	3,572	97	2,300
63	Cork and wood manufactures (excluding furniture)	915	31,259	–	129	39	2,399
64	Paper, paperboard, and articles of paper pulp, of paper or of paperboard	12,134	5,268	8	4,259	182	33,340
65	Textile yarn, fabrics, made-up articles, n.e.s., and related products	7,521	61,450	47	15,864	2,134	13,385
66	Non-metallic mineral manufactures, n.e.s.	24,930	11,664	3,098	15,139	296	3,753
67	Iron and steel	74,582	7,520	–	2,967	4,164	1,154
68	Non-ferrous metals	198,838	3,159	14,077	358	60	5,713
69	Manufactures of metals, n.e.s.	43,285	14,626	2,552	4,245	2,233	11,452
71	Power generating machinery and equipment	6,522	1,671	251	2,275	2,881	9,993
72	Machinery specialised for particular industries	39,172	6,953	223	19,222	2,449	33,749
73	Metalworking machinery	6,052	403	–	687	148	1,005
74	General industrial machinery and equipment, n.e.s., and machine parts, n.e.s.	31,961	14,015	494	13,902	2,638	15,040
75	Office machines and automatic data processing equipment	10,175	5,886	303	1,077	1,949	13,866
76	Telecommunications and sound recording and reproducing apparatus and equipment	5,607	26,393	20	4,240	232	4,293
77	Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof	25,429	38,859	309	7,542	547	9,526
78	Road vehicles (including air cushion vehicles)	15,503	4,993	807	4,384	674	11,724
79	Other transport equipment	37,847	7,327	26	20	621	3,336
81	Sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	2,380	1,624	–	96	–	1,073
82	Furniture and parts thereof	4,358	16,664	–	621	372	2,631
83	Travel goods, handbags and similar containers	126	8,490	–	8	7	232

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983-84(p)—*continued*

($'000)

		ASEAN		*Belgium-Luxembourg*		*Canada*	
Division No.	*Description*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
84	Articles of apparel and clothing accessories	1,494	21,673	–	706	380	530
85	Footwear	310	9,425	–	7	50	225
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	14,900	4,260	261	828	3,207	6,498
88	Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks	44,061	2,960	263	12,228	458	1,765
89	Miscellaneous manufactured articles	17,885	54,405	175	5,449	1,769	17,404
9A	Commodities and transactions of merchandise trade, not elsewhere classified	129,614	60,444	4,457	10,512	65,935	26,113
	Total merchandise	*2,030,874*	*1,232,436*	*163,454*	*160,654*	*304,974*	*451,502*
9B	Non-merchandise	145,924	8,813	191	959	10,304	8,016
	Grand total	**2,176,798**	**1,241,249**	**163,645**	**161,613**	**315,278**	**459,518**

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983-84(p)—*continued*

($'000)

	China-excl. Taiwan Province		*China-Taiwan Province only*		*EEC*		*France (French Republic)*		*Germany, Federal Republic of*	
Division No.	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	73	–	845	–	327	5,553	–	5	100	–
01	28	161	59,804	–	54,523	3,315	7,361	120	8,745	220
02	1,418	–	41,914	22	7,846	38,038	–	3,555	14	6,245
03	–	3,032	2,988	6,822	14,575	13,901	8,390	118	1,222	2,173
04	252,746	1,386	49,562	335	29,862	16,115	35	264	9,818	2,233
05	2	9,927	3,182	9,724	54,558	23,784	4,391	1,155	20,840	1,640
06	53,553	130	1	294	7,185	6,622	77	211	954	962
07	82	9,344	63	201	291	44,761	–	954	27	7,841
08	39	26	16,376	251	28,785	3,188	–	97	1,175	1,244
09	321	1,297	53	1,478	83	9,461	4	1,384	34	1,448
11	84	110	134	9	8,009	80,913	41	23,675	114	5,671
12	–	–	–	1	452	19,295	–	288	–	35
21	1,955	327	5,143	–	156,010	732	58,980	16	13,253	154
22	–	4,202	1,156	–	5,058	122	–	–	2,468	25
23	–	12	870	139	–	8,127	–	2,741	–	527
24	–	–	7,890	137	9,088	615	495	42	689	48
25	–	–	481	–	16	14	–	1	1	12
26	91,567	1,289	97,223	7,148	583,118	14,616	126,426	207	112,067	1,962
27	2	2,248	12,520	19	3,048	10,850	11	120	21	805
28	77,429	434	74,564	12	503,643	807	79,397	73	207,873	308
29	962	2,664	729	1,078	15,262	10,807	248	1,271	6,149	1,433
32	–	–	166,386	–	533,670	854	110,158	–	24,729	791
33	–	2,805	139	16,939	3,479	34,250	81	1,123	–	2,796
34	–	–	–	–	–	75	–	34	–	4
41	7,777	1	6,387	1	8,510	119	4,063	1	1,539	2
42	–	635	105	260	1,847	7,333	–	122	70	736
43	208	4	391	25	883	8,861	257	15	135	1,871
51	1,541	5,756	583	7,180	1,000	178,303	246	14,853	20	54,536
52	260	6,856	2,768	6,227	701	49,227	263	3,101	97	19,024
53	7	331	224	374	200	48,607	9	2,136	41	21,737
54	89	2,589	1,666	1,546	11,681	103,728	140	7,952	973	35,925
55	129	855	306	2,716	516	52,352	6	20,045	165	9,645
56	81	12	6	–	36	5,197	–	414	–	1,900
57	–	2,109	–	168	–	6,650	–	271	–	289
58	185	958	118	20,949	1,048	165,683	37	13,466	739	40,340
59	261	3,713	1,919	476	2,201	113,712	53	6,860	322	21,854
61	2,040	480	556	7,790	10,970	21,057	14	935	153	3,148
62	2	1,313	82	10,991	1,468	78,926	29	18,934	721	15,620
63	8	794	1	29,130	225	8,390	11	2,312	162	2,434
64	1,267	2,963	386	3,033	860	136,820	2	8,769	9	51,092
65	5,295	93,564	10,542	129,648	6,489	190,650	584	18,754	963	41,302
66	25	4,156	1,730	14,240	8,005	164,676	316	18,296	2,370	24,188
67	48,006	438	5,401	12,850	793	56,474	1	7,850	143	12,033
68	23,282	152	101,346	1,019	418,357	27,394	47,611	1,549	28,657	9,444
69	1,100	7,247	1,900	62,674	10,980	126,581	728	8,828	1,791	43,783
71	1	541	158	11,211	129,068	132,092	2,375	8,687	59,644	37,930
72	269	263	2,622	13,101	13,097	379,593	1,420	24,753	2,217	161,002
73	–	918	134	13,615	2,392	44,524	139	6,204	363	16,114
74	189	1,340	1,256	16,644	16,743	366,562	2,285	26,670	6,377	122,300
75	1,876	156	421	12,274	15,057	176,927	1,299	7,111	2,768	27,219
76	4	1,976	28	33,217	15,770	88,349	293	18,767	526	26,727
77	730	2,061	1,062	26,436	10,731	263,788	803	25,790	2,701	111,829

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)—*continued*

($'000)

Division No.	*China-excl. Taiwan Province*		*China-Taiwan Province only*		*EEC*		*France (French Republic)*		*Germany, Federal Republic of*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
78	41	58	27	35,831	27,523	294,730	623	21,707	1,718	179,553
79	2,197	7,931	21	3,016	32,770	361,375	3,506	98,783	583	23,340
81	–	137	1	6,686	207	16,369	1	1,400	20	4,318
82	7	4,689	45	27,396	1,256	49,775	5	1,041	73	9,771
83	1	6,111	–	33,962	41	8,890	2	578	5	441
84	199	67,324	147	81,995	1,047	35,625	364	4,826	56	4,300
85	99	16,429	18	54,489	89	29,126	5	3,838	–	2,148
87	823	287	1,144	5,442	48,096	136,503	10,788	12,339	3,358	50,996
88	60	591	12,006	9,961	4,643	101,926	95	12,417	834	33,673
89	110	20,001	476	101,637	17,799	360,732	1,465	17,991	1,977	55,794
9A	29,569	5,555	8,300	6,704	396,153	181,329	4,282	20,101	106,424	58,807
Total	*607,998*	*310,688*	*706,306*	*849,523*	*3,238,141*	*4,925,770*	*480,214*	*505,921*	*639,005*	*1,375,740*
9B	437	934	150	4,684	125,633	180,561	2,209	8,246	81,503	8,886
Total	**608,435**	**311,623**	**706,456**	**854,207**	**3,363,774**	**5,106,331**	**482,422**	**514,167**	**720,509**	**1,384,625**

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)—*continued*

($'000)

Division No.	*Description*	*Hong Kong*		*Indonesia Republic of*		*Iran Islamic Republic of*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	Live animals	1,604	–	1,693	–	–	–
01	Meat and meat preparations	9,140	15	2,687	–	–	–
02	Dairy products and birds' eggs	18,797	–	12,448	–	–	–
03	Fish, crustaceans and molluscs, and preparations thereof	26,208	2,692	310	2,111	–	317
04	Cereals and cereal preparations	29,197	1,381	99,993	88	184,212	–
05	Vegetables and fruit	10,049	1,366	1,622	988	–	702
06	Sugar, sugar preparations and honey	291	429	338	18	–	–
07	Coffee, tea, cocoa, spices and manufactures thereof	4,109	141	288	49,033	–	–
08	Feeding stuff for animals (not including unmilled cereals)	878	1	1,702	33	–	–
09	Miscellaneous edible products and preparations	3,468	3,463	1,806	120	–	–
11	Beverages	1,617	59	1,319	–	–	–
12	Tobacco and tobacco manufactures	425	26	197	6	–	–
21	Hides, skins and furskins, raw	1,322	9	–	–	–	–
22	Oilseeds and oleaginous fruit	–	296	–	44	–	–
23	Crude rubber (including synthetic and reclaimed)	2	–	7	11,121	–	–
24	Cork and wood	123	437	18	2,204	–	–
25	Pulp and waste paper	–	–	420	–	–	–
26	Textile fibres (other than wool tops) and their wastes (not manufactured into yarn or fabric)	10,446	237	4,421	–	9,260	–
27	Crude fertilisers and crude minerals (excluding coal, petroleum and precious stones)	110	3	4,277	–	–	9
28	Metalliferous ores and metal scrap	8,246	111	547	–	–	–
29	Crude animal and vegetable materials, n.e.s.	1,519	530	124	103	10	12
32	Coal, coke and briquettes	64,485	–	34	–	19,853	–
33	Petroleum, petroleum products and related materials	10,823	420	31,971	215,982	14,327	–
34	Gas, natural and manufactured	–	2	–	779	–	–
41	Animal oils and fats	392	–	328	–	594	–
42	Fixed vegetable oils and fats	31	459	36	–	–	–
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	769	–	488	984	–	–
51	Organic chemicals	294	485	889	338	–	–
52	Inorganic chemicals	2,033	44	8,208	15	–	–
53	Dyeing, tanning and colouring materials	1,916	202	1,722	–	–	–
54	Medicinal and pharmaceutical products	9,405	377	671	592	336	–
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	4,822	2,918	1,009	116	–	3
56	Fertilisers, manufactured	48	–	4	–	–	–
57	Explosives and pyrotechnic products	–	–	–	–	–	–
58	Artificial resins and plastic materials; and cellulose esters and ethers	2,661	1,194	1,736	111	–	–
59	Chemical materials and products, n.e.s.	1,395	711	2,580	–	24	–
61	Leather, leather manufactures, n.e.s., and dressed furskins	1,795	798	17	189	–	–
62	Rubber manufactures, n.e.s.	203	578	796	561	–	–
63	Cork and wood manufactures (excluding furniture)	74	501	400	1,093	–	–

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)—*continued*

($'000)

Division No.	Description	*Hong Kong*		*Indonesia Republic of*		*Iran Islamic Republic of*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
64	Paper, paperboard, and articles of paper pulp, of paper or of paperboard	4,961	3,265	1,270	3	–	–
65	Textile yarn, fabrics, made-up articles, n.e.s. and related products	14,246	97,203	1,258	4,712	12,623	2,143
66	Non-metallic mineral manufactures, n.e.s.	12,077	4,585	1,558	787	–	1
67	Iron and steel	9,078	99	23,188	–	21,966	–
68	Non-ferrous metals	45,451	2,547	55,253	–	12,087	–
69	Manufactures of metal, n.e.s.	10,539	30,785	5,398	49	16	75
71	Power generating machinery and equipment	621	1,063	389	254	–	–
72	Machinery specialised for particular industries	1,081	1,610	8,599	745	1,373	–
73	Metalworking machinery	389	234	740	–	–	–
74	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s.	3,328	4,209	3,973	–	57	–
75	Office machines and automatic data processing equipment	2,424	13,879	346	–	–	–
76	Telecommunications and sound recording and reproducing apparatus and equipment	1,998	30,760	335	–	4	–
77	Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof	6,690	47,050	7,119	6	216	–
78	Road vehicles (including air cushion vehicles)	493	1,286	6,849	2	160	–
79	Other transport equipment	2,846	1,954	2,985	11	11	–
81	Sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	161	4,152	3	2	–	1
82	Furniture and parts thereof	560	2,449	91	503	–	–
83	Travel goods, handbags and similar containers	575	30,202	15	127	–	–
84	Articles of apparel and clothing accessories	769	95,682	267	4,455	–	1
85	Footwear	154	3,376	61	61	–	–
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	3,417	2,779	1,763	31	263	–
88	Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks	39,916	28,433	2,956	57	8	1
89	Miscellaneous manufactured articles, n.e.s.	7,750	119,315	416	878	519	224
9A	Commodities and transactions of merchandise trade, not elsewhere classified	207,987	3,520	82,557	332	15,156	–
	Total merchandise	*606,209*	*550,318*	*392,496*	*299,645*	*293,076*	*3,489*
9B	Non-merchandise	5,795	1,858	3,381	96	9	10
	Grand total	**612,004**	**552,176**	**395,877**	**299,741**	**293,085**	**3,499**

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84—*continued*

($'000)

Division No.	*Italy (Italian Republic)*		*Japan*		*Korea, Republic of*		*Kuwait, State of*		*Malaysia*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	–	–	2,348	–	14,457	–	46,367	–	4,739	–
01	402	294	383,817	70	70,066	1	4,341	–	19,336	42
02	–	4,408	44,545	7	1,493	–	6,944	–	33,997	–
03	3,173	799	167,936	26,899	101	6,697	122	–	1,093	22,436
04	230	4,256	385,775	2,618	36,674	42	57,733	–	44,157	33
05	556	9,712	14,917	1,491	2	858	2,458	–	14,571	468
06	106	610	122,721	742	92,940	344	236	–	95,733	12
07	–	1,832	9,413	1,197	138	64	285	–	11,294	11,953
08	–	33	14,464	90	7,918	–	7,205	–	1,660	–
09	4	552	479	3,922	89	681	123	–	1,554	638
11	5	6,869	1,860	539	18	29	–	–	1,595	18
12	–	284	–	21	–	2,894	–	–	–	–
21	71,065	–	43,161	–	6,607	–	6	–	164	–
22	49	–	128	34	–	–	–	–	10	2
23	–	42	252	2,962	42	72	–	–	52	24,020
24	1	24	195,440	34	–	1	8	–	9	46,570
25	–	–	627	–	480	–	–	–	–	–
26	205,875	749	485,598	16,462	93,289	95	–	–	15,979	407
27	376	1,858	65,625	11,244	15,154	32	10	–	1,353	1
28	31,439	16	1,404,033	1,835	154,546	493	–	–	65,788	31
29	1,364	711	9,792	2,170	893	282	92	–	1,506	847
32	107,904	–	2,014,948	1,074	274,985	–	–	–	4,671	–
33	11	386	44,802	1,976	6,864	1,302	–	435,674	12,412	31,759
34	–	22	–	22	–	–	–	–	–	–
41	90	–	6,245	92	10,018	–	–	–	383	–
42	–	1,738	166	355	–	–	2	–	38	5,960
43	–	1	162	148	88	20	209	–	253	32,044
51	–	14,770	1,463	78,500	693	5,242	–	1,309	317	532

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84—*continued*

($'000)

Division No.	*Italy (Italian Republic)*		*Japan*		*Korea, Republic of*		*Kuwait, State of*		*Malaysia*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
52	–	1,365	381	33,947	4,417	693	–	–	524	22
53	–	992	792	6,986	16	717	4	–	558	1
54	449	8,551	7,860	9,369	982	1,027	228	–	4,956	1,015
55	23	2,136	883	2,941	65	437	7	–	2,317	44
56	36	76	303	651	3,756	–	–	–	14	–
57	–	14	–	122	–	–	–	–	–	37
58	–	14,449	9,544	70,737	232	2,573	25	–	1,333	973
59	2	1,573	8,218	13,759	627	180	12	–	3,290	150
61	9,894	5,094	537	4,063	1,309	3,087	7	–	188	68
62	131	12,373	192	102,808	33	17,025	–	–	182	7,135
63	6	1,026	17	1,156	–	746	–	–	101	11,530
64	2	33,931	1,513	69,706	5	4,129	21	–	7,267	752
65	827	41,259	15,129	269,897	1,263	82,056	20	1	2,969	17,642
66	100	57,813	26,314	80,006	570	5,183	17	–	2,391	1,399
67	4	12,508	25,699	221,498	9,730	41,398	359	–	12,240	26
68	1,096	1,215	507,980	12,162	15,082	5,872	148	–	36,282	2,274
69	1,048	16,380	5,347	105,390	699	24,192	486	–	10,712	3,941
71	213	11,051	3,716	173,967	–	658	31	8	474	24
72	666	57,822	3,680	196,446	1,191	44	55	–	6,489	696
73	116	7,915	744	39,206	73	409	94	–	1,405	49
74	723	47,847	1,725	241,090	671	6,981	867	2	4,479	2,763
75	423	18,740	6,103	293,608	115	3,054	66	–	2,668	76
76	9	15,228	861	639,533	43	21,215	104	–	1,442	5,132
77	402	19,185	2,186	327,080	101	8,519	192	–	5,015	3,292
78	53	19,646	14,965	1,663,627	11,772	3,340	30	–	1,372	900
79	343	115,686	1,801	96,443	73	–	116	–	352	27
81	18	5,513	45	4,340	1	409	–	–	75	93
82	2	31,142	809	6,633	49	521	180	–	942	1,819
83	6	5,674	450	2,387	4	9,216	–	–	2	160
84	193	15,341	969	8,555	11	45,296	10	–	156	3,450
85	10	21,126	8	831	3	20,741	–	–	46	3,651
87	1,409	6,045	2,659	79,128	768	1,408	29	–	2,379	611
88	214	7,460	8,006	125,623	526	1,206	74	–	1,815	51
89	520	38,923	3,810	188,170	611	32,438	256	31	2,716	4,698
9A	35,319	10,493	446,999	90,179	98,326	18,467	131	–	5,408	4,727
Total	*476,905*	*715,558*	*6,530,966*	*5,336,548*	*940,681*	*382,390*	*129,708*	*437,024*	*455,222*	*256,998*
9B	2,535	32,967	39,076	29,643	141	309	83	–	14,110	184
Total	**479,440**	**748,526**	**6,570,041**	**5,366,190**	**940,823**	**382,699**	**129,791**	**437,024**	**469,332**	**257,182**

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)—*continued*

($'000)

Division No.	Description	*Netherlands, Kingdom of the*		*New Zealand*		*Papua New Guinea*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	Live animals	—	—	15,668	28,667	233	—
01	Meat and meat preparations	4,414	2	2,223	8,651	34,323	—
02	Dairy products and birds' eggs	112	8,568	1,190	17,150	5,863	—
03	Fish, crustaceans and molluscs, and preparations thereof	242	1,745	4,347	53,063	447	916
04	Cereals and cereal preparations	9,200	2,851	23,076	9,334	40,658	12
05	Vegetables and fruit	2,303	1,586	18,073	32,318	3,419	22
06	Sugar, sugar preparations and honey	1,392	1,152	23,872	4,131	1,369	—
07	Coffee, tea, cocoa, spices and manufactures thereof	68	25,218	1,255	1,011	1,751	46,719
08	Feeding stuff for animals (not including unmilled cereals)	20,587	20	998	802	2,584	—
09	Miscellaneous edible products and preparations	—	936	1,059	7,053	4,662	—
11	Beverages	431	2,004	7,668	5,025	2,851	39
12	Tobacco and tobacco manufactures	407	13,848	61	119	6,448	1,465
21	Hides, skins and furskins, raw	2,032	2	2,582	11	—	38
22	Oil seeds and oleaginous fruit	2,325	5	884	127	24	—
23	Crude rubber (including synthetic and reclaimed)	—	705	1,289	18	51	2,836
24	Cork and wood	1,305	25	2,397	48,510	3	2,638
25	Pulp and waste paper	—	—	10	46,502	52	—
26	Textile fibres (other than wool tops) and their wastes (not manufactured into yarn or fabric)	53,359	869	2,618	32,820	2,451	—
27	Crude fertilisers and crude minerals (excluding coal, petroleum and precious stones)	674	833	3,188	733	869	8
28	Metalliferous ores and metal scrap	24,864	40	215	5,346	6	347

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)—*continued*

($'000)

Division No.	Description	*Netherlands, Kingdom of the*		*New Zealand*		*Papua New Guinea*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
29	Crude animal and vegetable materials, n.e.s.	1,945	1,904	4,398	8,251	900	10
32	Coal, coke and briquettes	114,696	12	339	376	5	—
33	Petroleum, petroleum products and related materials	1,905	9,764	246,399	7,692	78,358	19
34	Gas, natural and manufactured	—	—	—	—	—	—
41	Animal oils and fats	539	29	2,068	102	2,960	—
42	Fixed vegetable oils and fats	1,771	3,679	82	191	466	3,904
43	Animal and vegetable oils and fats, processed, and waxes of animal or vegetable origin .	89	4,801	661	241	1,108	—
51	Organic chemicals	—	18,358	5,931	4,536	604	—
52	Inorganic chemicals	126	1,255	11,267	493	1,333	—
53	Dyeing, tanning and colouring materials . .	20	2,179	6,130	4,853	1,562	—
54	Medicinal and pharmaceutical products . .	646	2,768	43,495	11,643	2,818	—
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations . .	50	1,924	9,728	13,266	6,263	—
56	Fertilisers, manufactured	—	1,339	1,292	70	485	—
57	Explosives and pyrotechnic products . . .	—	—	52	—	26	—
58	Artificial resins and plastic materials, and cellulose esters and ethers	118	16,329	17,604	9,561	4,036	—
59	Chemical materials and products, n.e.s. . .	27	15,598	11,496	4,711	4,713	—
61	Leather, leather manufactures, n.e.s., and dressed furskins	298	16	4,228	19,722	92	—
62	Rubber manufactures, n.e.s.	—	653	3,248	5,472	1,225	10
63	Cork and wood manufactures (excluding furniture)	4	138	2,070	21,191	573	3,456
64	Paper, paperboard, and articles of paper pulp, of paper or of paperboard	—	6,467	16,866	72,266	10,419	—
65	Textile yarn, fabrics, made-up articles, n.e.s., and related products	64	11,332	46,489	93,237	3,495	10
66	Non-metallic mineral manufactures, n.e.s. .	962	4,493	18,907	11,548	7,456	48
67	Iron and steel	25	894	60,910	13,688	15,964	90
68	Non-ferrous metals	14,212	1,296	69,066	8,069	1,602	1
69	Manufactures of metal, n.e.s.	669	2,467	40,692	42,175	36,289	21
71	Power generating machinery and equipment	15	1,698	12,782	2,321	4,986	13
72	Machinery specialised for particular industries	818	12,556	33,749	19,255	20,641	58
73	Metalworking machinery	5	2,094	4,819	3,300	1,667	1
74	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s.	353	35,130	46,911	28,982	18,577	11
75	Office machines and automatic data processing equipment	2,292	11,243	25,468	731	9,636	8
76	Telecommunications and sound recording and reproducing apparatus and equipment . .	448	2,705	6,081	5,454	4,986	2
77	Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof	999	19,387	43,580	40,316	19,558	13
78	Road vehicles (including air cushion vehicles)	669	4,217	136,011	17,092	14,780	8
79	Other transport equipment	15,213	39,555	9,207	4,499	8,160	155
81	Sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	40	515	1,638	1,180	2,736	—
82	Furniture and parts thereof	11	910	4,809	16,254	2,931	85
83	Travel goods, handbags and similar containers	1	91	232	1,905	70	1
84	Articles of apparel and clothing accessories .	25	140	3,151	24,690	1,842	172
85	Footwear	41	10	1,434	4,574	1,756	—
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	690	6,404	19,471	7,611	5,344	17
88	Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks	124	8,557	17,670	2,120	3,199	28
89	Miscellaneous manufactured articles, n.e.s. .	473	11,121	65,601	52,262	11,057	106
9A	Commodities and transactions of merchandise trade, not elsewhere classified	43,219	9,766	196,858	23,203	60,265	12,980
	Total merchandise	*327,319*	*334,203*	*1,365,565*	*910,495*	*483,005*	*76,264*
9B	Non-merchandise	1,900	2,075	35,256	11,253	11,382	414
	Total	**329,219**	**336,278**	**1,400,821**	**921,748**	**494,387**	**76,679**

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1983–84(p)—*continued*

($'000)

Div. No.	*Saudi Arabia, Kingdom of*		*Singapore, Republic of*		*United Kingdom of Great Britain and Northern Ireland*		*United States of America*		*U.S.S.R.*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
00	85,421	—	4,140	—	227	5,548	535	200	—	—
01	30,918	—	27,017	28	26,683	1,510	553,588	31	1	—
02	55,937	—	16,358	—	7,707	2,538	8,743	1,860	11,600	—
03	1,756	—	9,135	4,704	481	6,064	147,539	24,485	3	427
04	158,285	—	203,459	835	6,004	3,641	1,972	8,762	265,403	—
05	4,323	—	26,910	522	23,280	2,960	5,473	46,212	—	—
06	334	—	30,135	206	4,501	2,121	87,186	1,223	39,097	—
07	113	—	4,032	6,916	197	7,837	2,234	1,483	—	—
08	7,526	—	1,805	26	5,527	685	404	4,067	—	—
09	289	39	2,436	1,274	41	3,229	118	11,717	—	—
11	125	—	2,295	104	7,200	35,569	10,112	7,064	7	171
12	—	—	165	2	1	2,757	102	48,172	—	—
21	—	—	59	—	5,148	265	904	1,237	—	83
22	—	—	13	142	128	39	1,973	14,363	—	—
23	—	—	—	1,289	—	1,681	107	10,908	—	—
24	—	—	379	5,892	4,123	395	604	57,851	—	19
25	—	—	107	—	15	2	1	6,718	—	—
26	86	—	747	16	41,162	10,118	114,964	15,041	253,250	—
27	28	—	3,255	116	339	1,536	2,088	19,042	—	—
28	1,227	—	1,953	567	108,150	359	237,309	1,511	5,458	—
29	775	—	856	2,838	4,729	3,502	3,306	13,158	—	—
32	—	—	928	3	122,911	42	900	264	—	33
33	16	678,276	235,545	192,717	1,482	19,601	151,310	113,385	—	—
34	—	361	—	—	—	14	—	78	—	—
41	—	—	2,423	—	351	87	445	60	—	—
42	32	—	1	2,641	6	69	—	3,806	—	—
43	176	—	89	798	360	83	58	2,585	—	—
51	—	1,235	1,008	2,497	320	53,197	781	182,815	—	21
52	—	—	3,868	212	214	22,582	290	37,840	—	1,510
53	47	—	3,054	181	127	19,519	723	24,170	—	—
54	190	—	3,847	281	8,808	36,462	11,975	44,959	—	67
55	264	—	3,966	368	271	14,069	584	42,285	—	12
56	342	—	244	66	—	920	1,839	65,274	—	1,449
57	—	—	—	2	—	6,076	213	4,745	—	—
58	964	—	4,483	3,143	135	75,153	1,783	151,420	—	—
59	135	—	2,806	10,798	1,667	63,608	36,632	116,489	—	—
61	1	—	1,087	117	386	11,379	3,840	3,521	—	11
62	—	—	776	1,507	576	26,950	1,615	50,999	—	10
63	8	—	398	10,515	35	1,926	235	4,142	—	60
64	16	—	2,501	4,300	759	31,445	329	116,154	—	101
65	41	—	2,080	11,862	3,958	57,105	6,700	112,761	—	638
66	189	—	10,453	2,535	1,128	41,473	6,461	40,192	—	29
67	731	—	19,722	4,033	590	20,167	89,407	19,688	—	93
68	16,947	—	34,464	875	309,984	13,497	48,408	18,241	181	—
69	4,946	—	20,058	6,025	3,724	47,549	23,408	113,069	—	67
71	41	—	2,789	1,340	66,534	68,129	12,707	214,927	—	272
72	2,453	—	12,326	4,998	7,029	97,132	19,610	421,766	53	2,115
73	77	—	2,579	355	1,678	10,898	5,168	26,800	64	130
74	5,021	—	17,283	9,240	5,904	101,511	17,774	362,000	—	707
75	153	—	6,600	5,805	7,769	71,847	35,676	572,366	39	2
76	316	—	3,470	20,810	14,045	16,952	6,062	77,376	—	17
77	554	—	11,637	31,544	5,185	74,230	16,693	225,655	8	393
78	406	—	4,746	1,426	23,589	64,989	23,762	193,110	233	1,214
79	1,842	—	16,720	7,166	12,028	75,699	71,650	253,719	—	891
81	—	—	2,264	920	129	4,291	65	3,459	—	—
82	465	—	3,174	6,499	1,163	5,113	1,058	6,782	—	144
83	23	—	107	3,460	16	1,540	316	1,712	—	—
84	81	—	917	914	382	9,956	4,344	8,053	—	—
85	—	—	178	980	34	1,855	928	1,103	—	—
87	60	—	8,421	3,584	30,864	49,360	33,041	234,114	571	63
88	131	—	20,740	1,181	2,799	24,554	8,413	104,719	—	2
89	203	—	12,565	30,967	12,771	215,616	15,415	320,214	18	474
9A	5,001	—	14,380	50,180	202,354	64,087	752,670	452,382	5,664	669
Total	*389,015*	*679,911*	*829,953*	*462,321*	*1,097,709*	*1,613,088*	*2,592,553*	*5,044,305*	*581,653*	*11,895*
9B	2,580	11	121,563	7,852	36,501	127,073	112,191	144,088	103	199
Total	**391,596**	**679,923**	**951,515**	**470,172**	**1,134,210**	**1,740,161**	**2,704,744**	**5,188,392**	**581,756**	**12,094**

Foreign trade by State

The following table shows the value of exports and imports for each State and Territory.

EXPORTS AND IMPORTS BY STATE
(\$'000)

State(a)	1982–83 Exports	1982–83 Imports	1983–84(p) Exports	1983–84(p) Imports
New South Wales	5,433,645	8,610,738	5,771,969	10,027,948
Victoria	4,323,907	6,989,885	5,132,526	8,186,719
Queensland	4,461,583	1,994,650	5,442,927	2,086,980
South Australia	1,237,608	1,244,243	1,638,908	1,318,396
Western Australia	5,134,367	2,523,046	5,342,384	1,936,945
Tasmania	773,044	179,819	771,709	202,781
Northern Territory	565,148	252,285	590,735	279,941
Australian Capital Territory	8,286	11,512	3,976	23,186
State not available	124,036	—	110,108	—
Grand Total	**22,061,623**	**21,806,179**	**24,805,243**	**24,062,896**

(a) For imports: State in which entry was lodged. The State of lodgement is not necessarily the State in which the goods were discharged or consumed. For exports: State is State of origin of Australian produce and State of final shipment of re-exported goods. State of origin is defined as the State in which the final stage of production or manufacture occurs. Because of this change in the basis on which statistics by State are derived, figures from 1 July 1978 are not directly comparable with those for previous periods.

Total import clearances, dutiable clearances, and customs duties collected

The following table shows the value of total import clearances, total dutiable clearances, and the customs duties collected, together with the ratio of total dutiable clearances to total clearances.

TOTAL IMPORT CLEARANCES, DUTIABLE CLEARANCES, AND CUSTOMS DUTIES

		1977–78	1978–79	1979–80	1980–81	1981–82	1982–83
Total import clearances	\$'000	11,122,041	13,662,602	16,067,584	18,800,183	22,862,983	21,791,753
Total dutiable clearances	"	4,018,455	4,488,894	9,901,224	11,672,235	13,792,526	12,816,851
Total customs duties collected	"	1,145,388	1,378,923	1,576,736	1,827,031	2,102,501	2,066,023
Ratio of dutiable clearances to total clearance	per cent	36.1	32.5	61.6	62.1	60.3	58.8
Ratio of duties collected to dutiable clearances	"	28.5	31.1	15.9	15.7	15.2	16.1

Excise

Although excise goods have no immediate bearing on foreign trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Australian Customs Service, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of customs and excise revenue are shown in Chapter 22, Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc. on which excise duty was paid in Australia.

QUANTITIES OF PRINCIPAL EXCISABLE GOODS ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA

Article	*1981–82*	*1982–83*	*1983–84*
	'000 litre	'000 litre	'000 litre
Beer	1,934,358	1,856,934	1,818,881
	'000 l al	'000 l al	'000 l al
Spirits—			
Brandy	2,344	2,223	2,071
Gin	482	456	432
Whisky	308	284	229
Rum	2,381	2,223	2,159
Liqueurs	197	179	173
Vodka	716	690	692
Flavoured spirituous liquors	288	271	279
Other	7	8	2,665
Total spirits (potable)	*6,723*	*6,334*	*8,700*
	'000 kg	'000 kg	'000 kg
Tobacco	1,575	1,532	1,487
Cigars	68	56	47
Cigarettes—machine-made	28,503	26,989	26,669
	'000 litre	'000 litre	'000 litre
Petrol—			
Aviation gasoline—for use in aircraft(*a*)	114,948	102,803	111,548
Aviation gasoline—other(*a*)	–	14,184	–
Gasoline—commercial motor spirit/ethanol blends	409	18	–
Gasoline(*a*)	15,071,068	14,974,387	14,908,854
Aviation turbine kerosene(*a*)	1,195,417	1,145,961	1,118,053
Other kerosene	–	1,236	1,662,863
Diesel fuel	2,536,305	6,790,675	(b)7,833,959
	doz. packs '000		
Playing cards	86	n.p.	n.p.
	'000		
Cigarette papers and tubes	2,876,805	n.p	n.p.
	matches '000		
Matches	18,193,796	n.p.	n.p.
	'000 litre	'000 litre	'000 litre
Crude petroleum oil, liquid petroleum and liquefied petroleum gas	25,055,119	23,593,927	24,098,576
	'000 tonnes	'000 tonnes	'000 tonnes
Coal	86,790	94,877	65,208

(*a*) Includes supplies to Commonwealth Government on which excise was paid. (*b*) Includes automotive, industrial and marine diesel fuel.

FOREIGN INVESTMENT

Surveys of foreign investment have been conducted since 1947–48 to obtain particulars of certain types of capital flows to and from Australia. The surveys, when supplemented by other information, provide statistics of foreign investment in enterprises in Australia and in Australian government securities, as well as statistics of Australian investment in enterprises abroad and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the surveys.

Certain types of foreign investment are not included in the statistics which follow. Reserves, provisions and similar non-debt liabilities, investment in real estate (except when made through companies or, in other identified cases, when relevant information is available) and loans between Australian individuals and non-resident individuals are not covered. Non-resident deposits in, and foreign borrowings by, Australian trading banks are excluded from foreign investment statistics and are included instead in the non-official monetary item in the balance of payments capital account. Short-term trade credit owing to unrelated enterprises abroad is also excluded, but is included in the trade credit item of the balance of payments capital account.

In the tables which classify investment in Australia according to country of origin, the investment is shown as an inflow from the country of domicile of the foreign investor to whom the enterprises in Australia have the immediate liability. Income payable on foreign investment is classified on the same basis. Country classifications used in relation to Australian investment abroad, and income receivable thereon, attempt to reflect the country in which the investment was made.

Generally, the statistical unit used in foreign investment statistics is the group of enterprises related in terms of Section 7 of the *Companies Act* 1981. This unit is classified by industry on the basis of the major activity of the group as a whole. It should be noted that, because of the broad range of activities of many of the groups covered by these statistics, the classification of foreign investment by industry should be interpreted with some caution. In particular, the classification does not necessarily reflect the industry in which the funds are ultimately employed.

The following are explanatory notes relating to some of the terms used in the tables:

Borrowings: corporate securities (other than corporate equities), loans, advances, deposits, debentures, notes, bank overdrafts drawn, mortgages, trade credit owing to unrelated foreign enterprises for imports with a contractual maturity of over six months.

Branches. Offices in Australia of enterprises incorporated abroad *or* offices in separate foreign countries of enterprises incorporated in Australia. Australian branches of foreign enterprises *include* other Australian offices of foreign enterprises where a branch register is maintained in Australia, but *exclude* enterprises in Australia which are incorporated abroad but which have no business operations in Australia other than an account with a bank in Australia. Foreign branches of enterprises in Australia *exclude* foreign enterprises which are incorporated in Australia but which have no business operations abroad other than an account with a foreign bank. However, the short-term assets represented by the bank accounts abroad are included as Australian portfolio investment abroad for those companies included in the surveys of foreign investment.

Corporate equities: ordinary shares or voting stock.

Direct investment. All investment in branches and subsidiaries by direct investors i.e. head offices of branches, direct shareholders in subsidiaries and other related enterprises.

Enterprises. Incorporated and unincorporated businesses and other organisations including public enterprises, but *excluding* enterprises which have no business operations in a country other than an account with a bank in that country.

Foreign residents. Any individual, enterprise or other organisation domiciled in a country other than Australia. Includes Norfolk Island and other external territories of Australia. Foreign branches and subsidiaries of enterprises in Australia are also regarded as being foreign residents.

Portfolio investment and institutional loans. Investment in enterprises other than direct investment, i.e. investment other than investment by related enterprises in branches and subsidiaries. Includes both corporate equities and borrowings.

Subsidiaries. An *Australian subsidiary* of a foreign enterprise is an enterprise in Australia, other than a branch, in which:

- (*a*) a single foreign resident (individual or enterprise) or a group of related enterprises in one foreign country holds 25 per cent or more of the equity, or, if this condition does not apply,
- (*b*) residents of one foreign country combined hold 50 per cent or more of the equity, together with other enterprises in Australia which are subsidiaries (in terms of Section 7 of the *Companies Act* 1981) of the Australian subsidiary referred to above.

A *foreign subsidiary* of an enterprise in Australia is a foreign enterprise other than a branch, in which an enterprise in Australia holds 25 per cent or more of the equity. In principle, foreign enterprises in which the combined Australian shareholding is 50 per cent or more would also be included, but it is not practicable to ascertain the total investment by Australian shareholders in individual foreign enterprises.

Undistributed profits of subsidiaries. Equity of direct investors in the net earnings of an enterprise during the year, less tax payable on those earnings and less dividends declared during the year whether relating to earnings of the same year or not. Net earnings are, in general, based on income for taxation purposes. However, certain deductions allowable for taxation purposes (e.g. mining and petroleum exploration expenditure, Export Market Development Allowance, Investment Allowance for Manufacturing Plant, previous year's losses, etc.) are not deducted in calculating net earnings. Undistributed profits of Australian subsidiaries also include undistributed income accruing to the subsidiary from related enterprises in Australia.

Unremitted profits of branches. Net earnings (after tax) during the year, less remittances of earnings to the head office during the year, irrespective of the year to which the earnings relate. Net earnings of branches are, in general, calculated in a similar way to those for subsidiaries. Also included is undistributed income accruing to the branch from other enterprises related to the branch.

More details on foreign investment in Australia and Australian investment abroad are contained in the annual publication *Foreign Investment, Australia* (5305.0).

Foreign investment in enterprises in Australia

The level of foreign investment in enterprises in Australia in recent years is shown in the first table. The two following tables show the inflow of foreign investment each year and the income payable to foreign residents respectively.

LEVEL OF FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY TYPE OF INVESTMENT
($ million)

	Direct investment		*Portfolio investment and institutional loans*		*Totals*	
At 30 June	*Corporate equities (a)*	*Other(b)*	*Corporate equities (a)*	*Borrowings*	*Corporate equities (a)*	*Other*
1978	3,933	4,885	769	3,602	4,702	8,487
1979	4,401	5,584	835	4,260	5,236	9,844
1980	4,737	6,202	1,049	5,015	5,786	11,217
1981	6,005	7,424	1,491	7,218	7,496	14,642
1982	6,835	9,123	1,818	14,263	8,653	23,385
1983	7,648	10,434	2,372	22,607	10,020	33,040

(*a*) Paid up value only. (*b*) Includes branch liabilities to head office, intercompany indebtedness, and borrowings.

INFLOW OF FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY TYPE OF INVESTMENT
($ million)

	Direct investment				*Portfolio investment and institutional loans*			
Year	*Undistributed income*	*Corporate equities*	*Other(a)*	*Total*	*Corporate equities*	*Borrowings*	*Total*	*Total*
1977–78	658	156	227	1,041	−23	301	278	1,319
1978–79	824	−77	590	1,338	131	489	620	1,957
1979–80	1,018	34	488	1,540	699	777	1,476	3,016
1980–81	829	529	1,030	2,389	1,288	2,356	3,644	6,034
1981–82	238	−135	2,071	2,174	654	6,543	7,197	9,370
1982–83	−511	380	1,068	936	878	6,757	7,635	8,572

(*a*) Includes branch liabilities to head office, intercompany indebtedness, and borrowings. Minus sign (−) denotes withdrawal of investment.

INCOME PAYABLE ON FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY TYPE OF INCOME ($ million)

	Income payable abroad on direct investment					*Income payable abroad on portfolio investment and institutional loans*			
		Distributed income							
Year	*Undistributed income*	*Remitted profits of branches*	*Dividends payable*	*Interest payable*	*Total*	*Dividends payable*	*Interest payable*	*Total*	*Total*
1977–78 . .	658	314	295	114	1,381	79	235	315	1,696
1978–79 . .	824	294	288	131	1,537	87	305	392	1,929
1979–80 . .	1,018	390	391	175	1,973	98	411	509	2,482
1980–81 . .	829	366	454	169	1,818	186	522	708	2,527
1981–82 . .	238	310	561	243	1,351	171	1,030	1,202	2,553
1982–83 . .	−511	421	460	283	653	189	1,709	1,897	2,550

In the following table, foreign investment in enterprises in Australia, and associated income flows, are classified by country.

FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY COUNTRY ($ million)

	EEC								
Year	*United Kingdom*	*Other (a)*	*Switzerland*	*U.S.A.*	*Canada*	*Japan*	*ASEAN(b)*	*Other countries*	*Total*
				LEVELS OF FOREIGN INVESTMENT					
				Corporate equities (c)					
At 30 June—									
1978	1,803	298	148	1,502	129	272	27	522	4,702
1979	2,109	322	182	1,589	121	341	54	518	5,236
1980	2,241	432	228	1,640	152	435	67	590	5,786
1981	2,891	634	300	2,096	185	569	95	727	7,496
1982	3,294	766	309	2,452	203	688	118	824	8,653
1983	4,117	951	346	2,488	236	801	161	920	10,020
				Other					
At 30 June—									
1978	2,087	1,146	308	3,097	210	529	131	978	8,487
1979	2,459	1,285	422	3,431	230	708	158	1,151	9,844
1980	2,713	1,462	439	4,031	277	914	311	1,070	11,217
1981	3,572	1,690	442	5,232	388	1,347	624	1,347	14,642
1982	5,517	2,296	691	7,409	397	2,354	2,355	2,366	23,385
1983	7,209	3,020	901	9,726	452	4,649	3,640	3,444	33,040
				INFLOW OF FOREIGN INVESTMENT					
1977–78 . . .	404	77	54	605	−14	197	32	−35	1,319
1978–79 . . .	836	89	60	723	−19	279	56	−69	1,957
1979–80 . . .	1,024	402	107	724	52	422	160	124	3,016
1980–81 . . .	2,014	537	354	1,311	135	786	381	514	6,034
1981–82 . . .	2,700	496	218	1,870	57	1,248	1,715	1,065	9,370
1982–83 . . .	2,503	808	209	942	20	2,187	1,075	829	8,572
				INCOME PAYABLE ON FOREIGN INVESTMENT					
1977–78 . . .	635	60	40	818	−4	33	2	113	1,696
1978–79 . . .	782	84	41	856	11	60	7	87	1,929
1979–80 . . .	837	91	53	1,254	−15	121	16	125	2,482
1980–81 . . .	787	107	58	1,221	66	129	29	130	2,527
1981–82 . . .	930	126	50	921	68	219	101	139	2,553
1982–83 . . .	991	116	67	663	18	201	216	279	2,550

(*a*) Includes Belgium, Denmark, France, Federal Republic of Germany, Greece, Ireland, Italy, Luxembourg and Netherlands. (*b*) Includes Indonesia, Malaysia, Philippines, Singapore and Thailand. (*c*) Paid up value only. Minus sign (−) denotes withdrawal of investment.

In the following table, foreign investment in enterprises in Australia, and associated income flows, are classified by industry.

FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY INDUSTRY
($ million)

Year	*ASIC Division* Mining (Div B)	Manu-facturing (Div C)	Electricity, gas & water (Div D)	Wholesale and retail trade (Div F)	Finance, property & business services (Div I)	Other industries	Unall-ocated(a)	Total
LEVELS OF FOREIGN INVESTMENT								
Corporate equities (b)								
At 30 June—								
1978	648	2,147	—	819	797	291	—	4,702
1979	716	2,312	—	1,069	837	301	—	5,236
1980	840	2,431	1	1,151	1,036	327	—	5,786
1981	1,320	2,857	3	1,578	1,365	374	—	7,496
1982	1,521	3,251	4	1,727	1,719	430	—	8,653
1983	1,944	3,349	4	2,298	1,907	518	—	10,020
Other								
At 30 June—								
1978	2,040	2,222	89	1,570	1,743	824	—	8,487
1979	2,236	2,404	368	1,962	1,862	1,012	—	9,844
1980	2,611	2,310	685	2,329	2,043	1,239	—	11,217
1981	3,564	2,906	933	2,810	2,921	1,508	—	14,642
1982	5,567	5,024	2,039	3,759	4,572	2,425	—	23,385
1983	8,774	6,782	4,239	4,154	5,820	3,270	—	33,040
INFLOW OF FOREIGN INVESTMENT								
1977–78	97	282	62	443	210	225	—	1,319
1978–79	71	594	238	736	94	226	—	1,957
1979–80	528	470	319	913	489	299	—	3,016
1980–81	1,323	1,489	303	1,345	1,229	345	—	6,034
1981–82	1,556	2,813	1,053	1,120	1,935	893	—	9,370
1982–83	2,773	1,229	1,966	537	1,441	627	—	8,572
INCOME PAYABLE ON FOREIGN INVESTMENT (*a*)								
1977–78	391	428	—	310	213	38	315	1,696
1978–79	349	588	—	421	132	46	392	1,929
1979–80	497	599	—	635	179	64	509	2,482
1980–81	472	628	—	507	149	64	708	2,527
1981–82	14	742	—	368	198	29	1,202	2,553
1982–83	191	30	—	50	342	41	1,897	2,550

(*a*) Income payable on portfolio investment and institutional loans is not available by industry and is included in the unallocated column. (*b*) Paid-up value only. Minus sign (—) denotes withdrawal of investment.

Australian investment in enterprises abroad

The following tables show the levels and outflow of Australian investment in enterprises abroad in recent years, and associated income flows.

LEVEL OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES, BY TYPE OF INVESTMENT
($ million)

	Direct investment		*Portfolio investment and institutional loans*		*Totals*	
At 30 June	*Corporate equities(a)*	*Other(b)*	*Corporate equities(a)*	*Borrowings*	*Corporate equities(a)*	*Other*
1978	576	831	75	113	650	944
1979	631	891	72	104	703	995
1980	875	1,047	99	218	973	1,265
1981	933	1,209	129	92	1,062	1,300
1982	1,185	1,611	449	119	1,634	1,730
1983	1,480	1,879	737	129	2,217	2,008

(*a*) Paid-up value only. (*b*) Includes branch liabilities to head office, intercompany indebtedness and borrowings.

OUTFLOW OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES, BY TYPE OF INVESTMENT
($ million)

Year	Direct investment				Portfolio investment and institutional loans	Total
	Undistributed income	Corporate equities	Other(a)	Total		
1977-78	99	—	117	216	18	234
1978-79	160	52	14	225	33	258
1979-80	231	90	137	458	118	576
1980-81	199	122	124	445	23	468
1981-82	109	152	387	648	396	1,044
1982-83	250	243	217	710	684	1,394

(a) Includes branch liabilities to head office, intercompany indebtedness and borrowings.

INCOME RECEIVABLE ON AUSTRALIAN DIRECT INVESTMENT IN FOREIGN ENTERPRISES, BY TYPE OF INCOME(a)
($ million)

Year	Undistributed income	Distributed income				Total
		Remitted profits of branches	Dividends of subsidiaries	Interest	Total	
1977-78	99	36	114	4	154	252
1978-79	160	52	88	7	147	306
1979-80	231	71	123	8	201	433
1980-81	199	51	145	5	201	400
1981-82	109	61	118	10	189	298
1982-83	250	33	122	17	172	422

(a) Direct investment only. Minus sign (−) denotes repatriation.

In the following table, Australian investment in foreign enterprises, and associated income flows, are classified by country.

AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES, BY COUNTRY
($ million)

Year	E.E.C.		New Zealand	U.S.A.	Papua New Guinea	ASEAN (b)	Other Countries	Total
	United Kingdom	Other(a)						
LEVELS OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES								
Corporate equities(c)								
At 30 June—								
1978	55	22	161	51	153	78	130	650
1979	61	22	148	71	161	95	145	703
1980	92	25	181	110	293	100	172	973
1981	110	27	160	151	290	111	212	1,062
1982	130	33	184	472	354	196	267	1,634
1983	158	45	316	633	395	208	463	2,217
Other								
1978	162	55	166	131	150	78	203	944
1979	137	66	159	169	137	95	231	995
1980	226	86	161	246	144	126	276	1,265
1981	195	75	170	306	139	156	258	1,300
1982	264	139	294	384	131	227	291	1,730
1983	228	153	309	516	128	243	431	2,008

AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES, BY COUNTRY—*continued*
($ million)

	E.E.C.							
Year	*United Kingdom*	*Other(a)*	*New Zealand*	*U.S.A.*	*Papua New Guinea*	*ASEAN (b)*	*Other Countries*	*Total*
OUTFLOW OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES								
1977–78	69	−1	48	3	30	37	48	234
1978–79	15	7	22	83	15	46	69	258
1979–80	164	27	75	125	55	38	90	576
1980–81	14	19	70	212	−31	91	93	468
1981–82	196	20	192	448	40	46	102	1,044
1982–83	89	19	136	670	—	157	323	1,394
INCOME RECEIVABLE ON AUSTRALIAN DIRECT INVESTMENT IN FOREIGN ENTERPRISES(*f*)								
1977–78	30	−3	61	8	63	21	71	252
1978–79	42	(*d*)	66	15	63	37	(*e*)83	306
1979–80	57	13	87	18	119	42	96	433
1980–81	89	21	94	5	33	69	90	400
1981–82	8	6	113	−16	37	71	79	298
1982–83	117	(*d*)	97	6	35	67	(*e*)100	422

(*a*) Belgium, Denmark, France, Federal Republic of Germany, Greece, Ireland, Italy, Luxembourg and Netherlands. (*b*) Indonesia, Malaysia, Philippines, Singapore and Thailand. (*c*) Paid-up value only. (*d*) Not available; included in 'Other Countries'. (*e*) Includes 'Other E.E.C.' (*f*) Details of income receivable are not available for portfolio investment and institutional loans. Minus sign (−) denotes repatriation of investment.

BALANCE OF PAYMENTS

Broadly speaking, the Australian balance of payments is a statistical statement designed to provide a systematic record of Australia's economic transactions with the rest of the world. It may be described as a system of consolidated accounts in which the accounting entity is the Australian economy and the entries refer to all economic transactions between residents of Australia and residents of the rest of the world (non-residents). Such a record is essential to the examination of influences which external factors have on the domestic economy. Balance of payments estimates have always assumed a particular importance in Australia due to the importance of these influences on the Australian economy.

Official estimates of Australia's balance of payments for the period 1928-29 were included in Year Book No. 24, page 755. Except for the war years 1939 to 1945, estimates have since been published at least annually.

Detailed estimates and brief descriptions of the various items included are provided in the annual publication *Balance of Payments, Australia* (5303.0). More timely though less detailed estimates are provided in a quarterly publication *Balance of Payments, Australia* (5302.0) approximately five and a half weeks after the end of each quarter. A monthly publication *Balance of Payments, Australia* (5301.0), showing the major aggregates, is published about eight to nine working days after the end of each month. A comprehensive description of concepts, definitions, data sources and methods used to compile published statistics are contained in the publication *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0). Changes to concepts, sources and methods since that publication are described in the annual publication *Balance of Payments, Australia* (5303.0) for 1982–83 and in the December quarter 1983 and March quarter 1984 issues of 5302.0.

Balance of payments statements cover a wide range of economic transactions which may be broadly divided into three categories. The first category comprises transactions in goods, services and income between residents of Australia and non-residents. The second category relates to financial transactions involving claims on and liabilities to the rest of the world. Because the statement is constructed on a double entry recording basis, a third category described as unrequited transfers is required to provide offsetting entries for one sided balance of payments transactions, such as gifts in cash and kind which have no 'quid pro quo'. Two changes not arising from transactions—specifically changes in Australia's official reserve assets arising from the allocation (or cancellation) of Special Drawing Rights (SDRs) by the International Monetary Fund (IMF) and the monetisation (or demonetisation) of gold—are included by convention, to make the accounts more analytically useful. The first and third of the above categories are combined in what is described as the current account and the second category together with the two changes not arising from transactions are shown separately in what is described as the capital account.

Under the internationally accepted conventions of the double entry system, credit entries are used to record exports of goods and services, income receivable and financial transactions involving either a reduction in the country's foreign financial assets or an increase in its foreign liabilities. Conversely, debit entries are used to record imports of goods and services, income payable and financial transactions involving either an increase in foreign financial assets or a decrease in foreign liabilities. Transactions in a double entry accounting system are reflected in pairs of equal credit and debit entries. Any entries that are not automatically paired are matched by special offsetting entries. Such offsetting entries are required in the category of unrequited transfers for one sided balance of payments transactions. Offsets are also required for the other changes not arising from transactions referred to in the previous paragraph.

It follows that, in principle, the net sum of all credit and debit entries is zero. In practice, some transactions are not measured accurately (errors), while others are not measured at all (omissions). Equality between the sum of the credit and debit entries is brought about by the inclusion of a balancing item which reflects net errors and omissions.

In principle, transactions and other changes should be valued in the balance of payments at market prices. However, in practice, transactions are generally valued in the statistics at transactions prices because this basis provides the closest practical approximation to the market price principle. The transactions price is the price at which a transaction is recorded in the accounts of the transactors.

Transactions and other changes recorded in the balance of payments should, in principle, be recorded at the time of change of ownership (either actual or imputed). For the current account this is conceived as the time when ownership of goods changes, services are rendered, when undistributed income of direct investment enterprises is earned, and when interest and dividends become due for payment. In the case of unrequited transfers, those which are imposed by one party on another, such as taxes and fines, should ideally be recorded at the time they become due for payment without penalty; whereas others should be recorded when the goods, services etc. to which they are offsets change ownership. For capital account transactions the time of change of ownership is, by convention, normally taken to be the time at which transactions are entered in the books of the transactors. Entries for loan drawings should be based on actual disbursements and not on commitments or authorisations. Entries for loan repayments should be recorded at the time they become due rather than on the actual payment date.

In practice, the nature of the available data sources is such that the time of recording of transactions will often differ from the time of change of ownership. This is particularly true in the case of transactions in goods which are, in the main, recorded at the time that administrative records relating to the movement of the goods across the customs frontier are processed. Where practical, timing adjustments are made for transactions in certain goods to ensure that they are recorded in the time period in which change of ownership occurs.

In the first table that follows, the global balance of payments is presented in the conventional two column credit and debit accounting format. In the regional table, however, minus signs are used to denote current account debits and capital account debits (i.e. increases in assets or decreases in liabilities) while the absences of sign are used to denote current account credits and capital account credits (i.e. decreases in assets or increases in liabilities).

For current account transactions, entries for exports of goods and entries for imports of goods are recorded as credits and debits respectively. Likewise entries for transportation credits are recorded seperately from entries for transportation debits and for most other invisible transactions the credit entries are similarly recorded separately from the debit entries. Current account transactions, in this context, are described as being recorded gross. This treatment is in contrast to the recording of transactions and other changes in the capital account which is on a net basis. This means that, for each capital account item shown in the following table, credit entries are combined with debit entries to arrive at a single net result (either a credit or a debit) for the item concerned.

In principle, the items included in visible trade should include all movable goods, with a few exceptions, the ownership of which changes from residents to non-residents (exports) and from non-residents to residents (imports). Items 3 to 10 which are grouped together under the heading 'invisibles' include services, income and unrequited transfers. Invisible credits comprise the value of services rendered by residents to non-residents, the income earned by Australian residents from the ownership of foreign financial assets (e.g. dividends and interest) and from the use of copyrights, licences, etc., by non-residents (e.g. royalties), and the offset entries to the value of cash and kind transferred by non-residents to residents without a quid pro quo (unrequited transfers). Invisible debits are composed of similar transactions, but with the roles of resident and non-resident interchanged.

For capital account transactions, the entries for government capital (items 11 to 13) broadly refer to the capital account transactions of the general government sector (i.e. Commonwealth, State and local government authorities and statutory bodies except for government-owned or controlled (public) trading and financial enterprises). Items 14 to 17, which comprise private capital, broadly refer to the capital account transactions of resident individuals, privately owned trading and non-bank financial enterprises and government owned or controlled (public) trading and non-bank financial enterprises.

The transactions of non-official monetary institutions (item 18) broadly cover the capital account transactions of the privately and government owned trading banks mainly in the form of borrowings (from and by non-residents) and balances (foreign currency held overseas and Australian currency held by non-residents), while item 19, official monetary institutions, covers all capital account transactions with the IMF, all capital account transactions of the Reserve Bank, with foreign central monetary authorities including the Bank for International Settlements; and transactions and all changes (other than those resulting from revaluation) in the holdings of monetary gold and foreign currency assets owned and controlled by the resident central authorities which are available for meeting balance of payments needs.

BALANCE OF PAYMENTS

($ million)

	1980–81		*1981–82*		*1982–83*	
	Credit	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*
CURRENT ACCOUNT						
Goods—						
1 Exports f.o.b.(*a*)	18,718	—	19,083	—	20,656	—
2 Imports f.o.b.(*a*)	—	19,169	—	22,379	—	21,610
Balance of trade	—	451	—	3,296	—	954
Invisibles—						
4 Transportation—						
4.1 Freight on imports	—	1,717	—	1,960	—	1,795
4.2 Expenditure of non-resident transport operators	1,121	—	1,184	—	1,213	—
4.3 Other transportation	892	1,638	910	1,782	969	1,868
5 Travel	898	1,561	1,030	1,696	1,128	1,857
6 Government—						
6.1 Australian government—						
6.11 Defence expenditure	—	108	—	121	—	142
6.12 Other expenditure	—	179	—	200	—	229
6.13 Services to non-residents	30	—	53	—	62	—
6.2 Foreign governments' expenditure	96	—	108	—	132	—
7 Miscellaneous—						
7.1 Business expenses	105	170	121	182	136	212
7.2 Other	143	208	167	242	186	280
8 Property income—						
8.1 Direct investment—						
8.11 Undistributed	199	829	109	238	761	—
8.12 Distributed	201	989	189	1,113	172	1,164
8.2 Interest on government loans	—	373	—	370	—	535
8.3 Royalties and copyrights	32	126	25	135	25	150
8.4 Other	304	766	336	1,286	652	1,983
9 Government transfers—						
9.1 Papua New Guinea	—	259	—	270	—	292
9.2 Other foreign aid	—	315	—	398	—	440
9.3 Social security cash benefits	—	52	—	65	—	71
10 Private transfers—						
10.1 Migrants' funds	204	73	230	78	240	100
10.2 Social security cash benefits	20	—	19	—	20	—
10.3 Other	487	367	549	413	688	500
Balance on current account	—	5,448	—	8,815	—	6,188

BALANCE OF PAYMENTS
($ million)

	1980–81		*1981–82*		*1982–83*	
	Credit	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*
CAPITAL ACCOUNT (NET)						
Non-monetary—						
Government—						
11 Securities—						
11.1 Domiciled overseas	—	101	368	—	582	—
11.2 Domiciled in Australia	18	—	173	—	385	—
12 International development financing institutions	—	44	—	9	—	84
13 Other government transactions	80	—	—	20	—	87
Private—						
14 Foreign investment in enterprises in Australia—						
14.1 Direct investment—						
14.11 Undistributed income	829	—	238	—	—	511
14.12 Other	1,559	—	1,936	—	1,448	—
14.2 Portfolio investment and institutional loans—						
14.21 Public enterprise borrowings	433	—	1,164	—	1,651	—
14.22 Other	3,213	—	6,033	—	5,984	—
15 Australian investment abroad—						
15.1 Direct investment—						
15.11 Undistributed income	—	199	—	109	—	250
15.12 Other	—	246	—	539	—	460
15.2 Portfolio investment and institutional loans	—	19	—	383	—	690
16 Net remittances abroad by life insurance enterprises	9	—	17	—	10	—
17 Trade credit n.e.i.—						
17.1 Public enterprises	82	—	135	—	27	—
17.2 Other	—	150	63	—	—	328
Monetary—						
18 Non-official monetary institutions—						
18.1 Changes in liabilities—						
18.11 Borrowing overseas	15	—	111	—	328	—
18.12 Other liabilities	40	—	43	—	46	—
18.2 Changes in assets—						
18.21 Advances to non-residents	14	—	—	27	5	—
18.22 Foreign currency balances	—	133	—	21	282	—
19 Official monetary institutions—						
19.1 Changes in liabilities—						
19.11 Use of IMF credit	—	128	—	—	37	—
19.12 Other liabilities	—	13	6	—	—	12
19.2 Changes in official reserve assets	—	1,101	—	1,364	—	2,460
19.3 Allocation of SDRs	86	—	—	—	—	—
19.4 Other transactions	8	—	4	—	—	1
Balancing item	1,197	—	998	—	285	—
Balance on capital account	**5,448**	—	**8,815**	—	**6 188**	—

(*a*) The amounts shown represent the foreign trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation.

BALANCE OF PAYMENTS BY REGIONS

($ million)

	1980–81	*1981–82*	*1982–83*
CURRENT ACCOUNT(*a*)			
Exports f.o.b.(*b*)—			
United States of America	2,091	2,064	2,131
Canada	436	357	259
United Kingdom	696	758	1,118
Germany, Federal Republic	462	453	492
Other European Economic Community(*c*)	1,153	1,132	1,335
Japan	5,240	5,313	5,920
New Zealand	881	1,007	1,114
Other OECD(*d*)	246	233	225
Total OECD	11,204	11,317	12,594
ASEAN	1,541	1,612	1,709
Papua New Guinea	412	405	494
Centrally Planned Economies(*e*)	1,745	1,382	1,306
Other countries	3,817	4,367	4,553
Total exports	*18,718*	*19,083*	*20,656*
Imports f.o.b.(*b*)—			
United States of America	−4,554	−5,235	−4,774
Canada	−494	−582	−433
United Kingdom	−1,560	−1,677	−1,527
Germany, Federal Republic	−1,058	−1,284	−1,266
Other European Economic Community(*c*)	−1,198	−1,541	−1,557
Japan	−3,669	−4,423	−4,523
New Zealand	−629	−719	−685
Other OECD(*d*)	−736	−851	−752
Total OECD	−13,899	−16,310	−15,516
ASEAN	−1,256	−1,455	−1,498
Papua New Guinea	−73	−69	−68
Centrally Planned Economies(*e*)	−316	−379	−371
Other countries	−3,626	−4,165	−4,157
Total imports	*−19,169*	*−22,379*	−21,610
Invisibles (net)—			
United States of America	−1,663	−1,293	−683
Canada	−73	−78	−4
United Kingdom	−1,017	−1,187	−1,107
Germany, Federal Republic	−145	−170	−208
Other European Economic Community(*c*)	−365	−446	−395
Japan	−299	−449	−430
New Zealand	51	9	−82
Other OECD(*d*)	−232	−278	−305
Total OECD	−3,742	−3,891	3,214
ASEAN	−456	−563	−724
Papua New Guinea	−128	−152	−194
Centrally Planned Economies(*e*)	15	−33	−71
Other countries	−685	−881	−1,030
Total invisibles (net)	*−4,997*	*−5,519*	−5,234
Balance on current account—			
United States of America	−4,126	−4,465	−3,326
Canada	−131	−302	−178
United Kingdom	−1,881	−2,105	−1,516
Germany, Federal Republic	−742	−1,000	−982
Other European Economic Community(*c*)	−410	−855	−617
Japan	1,272	442	967
New Zealand	303	297	347
Other OECD (*d*)	−722	−897	−832
Total OECD	−6,438	−8,884	−6,137
ASEAN	−171	−405	−513
Papua New Guinea	210	184	232
Centrally Planned Economies(*e*)	1,444	970	864
Other countries	−494	−679	−634
Balance on current account	**−5,448**	**−8,815**	**−6,188**

For footnotes *see* end of table

BALANCE OF PAYMENTS BY REGIONS—*continued*

($ million)

	1980–81	*1981–82*	*1982–83*
CAPITAL ACCOUNT (NET)(*a*)			
Non-monetary sector—			
Government capital movements—			
United States of America	9	−360	−52
Canada	−6	—	—
United Kingdom	−33	−75	248
Germany, Federal Republic	−41	91	19
Other European Economic Community(*c*)	−8	−3	95
Japan	82	286	568
New Zealand	—	—	—
Other OECD(*d*)	−2	564	—
Total OECD	—	502	877
ASEAN	2	—	—
Papua New Guinea	4	4	4
Centrally Planned Economies (*e*)	—	—	—
Other countries	−54	5	−85
Total government capital movements	*−48*	*511*	*796*
Foreign investment in enterprises in Australia—			
United States of America	1,311	1,871	942
Canada	134	57	20
United Kingdom	2,015	2,700	2,503
Germany, Federal Republic	124	159	288
Other European Economic Community(*c*)	413	337	520
Japan	786	1,248	2,186
New Zealand	41	−20	89
Other OECD(*d*)	351	256	230
Total OECD	5,176	6,607	6,778
ASEAN	381	1,715	1,076
Papua New Guinea	−2	−2	—
Centrally Planned Economies(*e*)	16	13	112
Other countries	464	1,037	606
Total foreign investment in enterprises in Australia	*6,034*	*9,371*	*8,572*
Other private capital movements—			
United States of America	−278	−300	−819
Canada	7	4	−39
United Kingdom	−15	−215	−87
Germany, Federal Republic	10	—	−75
Other European Economic Community(*c*)	−59	35	23
Japan	11	−7	−32
New Zealand	−51	−212	−125
Other OECD(*d*)	23	3	−3
Total OECD	−353	−693	−1,156
ASEAN	−144	16	−196
Papua New Guinea	41	−93	−102
Centrally Planned Economies(*e*)	154	14	−3
Other countries	−220	−59	−234
Total other private capital movements	*−522*	*−816*	*−1,690*
Total non-monetary sector transactions—			
United States of America	1,042	1,211	71
Canada	135	60	−18
United Kingdom	1,967	2,410	2,664
Germany, Federal Republic	93	249	232
Other European Economic Community(*c*)	346	369	638
Japan	879	1,526	2,722
New Zealand	−10	−232	−37
Other OECD(*d*)	372	823	227
Total OECD	4,823	6,415	6,498
ASEAN	239	1,731	880
Papua New Guinea	43	−90	−98
Centrally Planned Economies(*e*)	170	27	110
Other countries	189	983	288
Total non-monetary sector transactions	*5,464*	*9,065*	*7,678*

For footnotes *see* end of table.

BALANCE OF PAYMENTS BY REGIONS—*continued*

($ million)

	1980–81	*1981–82*	*1982–83*
CAPITAL ACCOUNT (NET)(*a*)			
Monetary sector transactions—			
Net official monetary movements(*f*)	−1,149	−1,354	−2,436
Non-official monetary sector transactions(*f*)	−65	106	661
Balancing item(*f*)	1,197	998	285
Balance on capital account(*f*)	**5,448**	**8,815**	**6,188**

(*a*) For current account entries minus sign(−) denotes a debit, for capital account items minus sign(−) denotes an increase in foreign financial assets or a decrease in foreign liabilities. (*b*) The amounts shown represent foreign trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation. (*c*) Belgium, Luxembourg, Denmark, France, Ireland, Italy, Netherlands, Greece. (*d*) Spain, Turkey, Austria, Finland, Iceland, Norway, Portugal, Sweden, Switzerland. (*e*) Albania, Bulgaria, China, Czechoslovakia, Democratic Peoples' Republic of Korea, German Democratic Republic, Hungary, Mongolia, Poland, Romania, the Socialist Republic of Vietnam, and the Union of Soviet Socialist Replublics. (*f*) No regional split is available for these items.

International reserves

OFFICIAL RESERVE ASSETS(*a*)

(*Source:* Reserve Bank of Australia)

($ million)

	30 June		
	1982	*1983*	*1984*
Official reserve assets—			
Foreign exchange—			
United States dollars	3,395	5,642	6,771
Others	670	1,258	1,840
Special Drawing Rights	8	105	166
Reserve position in IMF	—	—	162
Gold	2,444	3,744	3,478
Total	**6,517**	**10,748**	**12,417**

(*a*) SDRs, and Australia's reserve position in the IMF are based on the IMF basket valuation for the SDR, which is published in terms of US dollars crossed with the representative rate for the Australian dollar in terms of the US dollar. Gold is valued at the average London gold price for the month, converted to Australian dollars at the market rate of exchange applying on the last day of the month. The foreign currency value of all other overseas assets has been based, where applicable, on market quotations. Accrued interest is normally taken into account. Conversion to Australian dollar equivalent is based on market rates of exchange.

VALUES OF EXPORTS AND IMPORTS OF GOODS (BALANCE OF PAYMENTS BASIS) AT CONSTANT PRICES

The following tables show annual values of Australian exports and imports of goods at current and constant (average 1979-80) prices. These estimates are compiled on a balance of payments basis within the framework of the Australian Export Commodity Classification (AECC) and the Australian Import Commodity Classification (AICC). Quarterly figures in original and seasonally adjusted terms are published regularly in the publication *Exports and Imports (Balance of Payments Basis) at Constant Prices, Australia* (5332.0).

A constant price estimate may be thought of as being derived by expressing the current price value of each component transaction as the product of a price and a quantity and by substituting for each actual current price the corresponding price in the chosen base year. There are, however, many transactions recorded in statistics of overseas trade for which it is not possible to apply such an approach. In such cases it is necessary to make assumptions and approximations (e.g. revaluing by means of the price index which is considered to be most closely related to the commodity involved). The published estimates at constant prices should be viewed in this light.

Estimates at current prices are often divided by their corresponding estimates at constant prices to give measures of price change (generally referred to as implicit price deflators (IPDs)). IPDs are derived measures and are not normally the direct price measures by which current price estimates are converted to estimates at constant prices. A more detailed discussion of the nature of IPDs is presented in Appendix B of the publication *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

The published components of exports of goods f.o.b. and imports of goods f.o.b. consist of varying numbers of AECC and AICC divisions and/or sections as shown below.

Exports	*Section or division of AECC*
Rural—	
Meat and meat preparations	01
Cereal grains and cereal preparations	04
Sugar, sugar preparations and honey	06
Wool and sheepskins	Parts of 21, 26 and 65
Other rural	00, 02, 03, 05, 07 to 09, 21 (part), 22 to 25, 26 (part), 29, 4
Non-rural—	
Metal ores and minerals	27, 28
Mineral fuels—	
Coal, coke and briquettes	32
Other	33, 34
Metals and metal manufactures	67 to 69
Machinery and transport equipment	7
Other non-rural	1, 5, 61 to 64, 65 (part), 66, 8, 9

Imports	*Section or division of AICC*
Food, beverages and tobacco	0, 1
Fuels	3
Basic materials	2, 4
Chemicals (incl. plastics)	5
Textiles, fabrics, etc.	65
Metals and metal manufactures	67 to 69
Machinery and transport equipment	7
Other imports	61 to 64, 66, 8, 9

EXPORTS OF GOODS (BALANCE OF PAYMENTS BASIS) AT CURRENT AND AVERAGE 1979-80 PRICES

$ million

	1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
			At current prices			
Rural exports f.o.b.						
Meat and meat preparations	1,712	1,729	1,593	1,380	1,675	1,393
Cereal grains and cereal preparations	1,182	2,957	2,339	2,484	1,848	2,816
Sugar, sugar preparations and honey	466	719	1,199	784	608	674
Wool and sheepskins	1,608	1,790	1,920	1,875	1,789	2,000
Other (dairy produce, fruit, etc.)	1,381	1,653	1,636	1,752	1,985	2,154
Total rural	*6,350*	*8,847*	*8,687*	*8,275*	*7,905*	*9,037*
Non-rural exports f.o.b.						
Metal ores and minerals	2,616	3,306	3,409	3,456	3,852	4,233
Mineral fuels—						
Coal, coke and briquettes	1,532	1,686	1,981	2,295	3,078	3,321
Other (*a*)	316	427	517	867	1,058	1,480
Metals and metal manufactures	1,506	2,027	1,686	1,627	1,912	2,155
Machinery and transport equipment	645	798	912	1,053	1,150	1,370
Other non-rural (*b*)	1,107	1,498	1,528	1,510	1,701	2,129
Total non-rural	*7,722*	*9,741*	*10,032*	*10,808*	*12,751*	*14,688*
Total exports f.o.b.	**14,072**	**18,589**	**18,718**	**19,083**	**20,656**	**23,725**
			At average 1979-80 prices			
Rural exports f.o.b.						
Meat and meat preparations	2,256	1,729	1,654	1,596	1,790	1,311
Cereal grains and cereal preparation	1,473	2,957	2,041	2,236	1,606	2,275
Sugar, sugar preparations and honey	582	719	785	784	815	758
Wool and sheepskins	1,892	1,790	1,819	1,701	1,603	1,699
Other (dairy produce, fruit, etc.)	1,598	1,653	1,573	1,652	1,734	1,682
Total rural	*7,801*	*8,847*	*7,872*	*7,969*	*7,548*	*7,725*
Non-rural exports f.o.b.						
Metal ores and minerals	3,222	3,306	3,076	2,823	2,910	3,124
Mineral fuels—						
Coal, coke and briquettes	1,564	1,686	1,824	1,797	2,050	2,382
Other (*a*)	593	427	471	771	857	1,183
Metals and metal manufactures	1,968	2,027	1,843	1,953	2,214	2,218
Machinery and transport equipment	728	798	831	857	832	933
Other non-rural (*b*)	1,431	1,498	1,504	1,474	1,548	1,852
Total non-rural	9,506	9,741	9,549	9,675	10,411	11,692
Total exports f.o.b.	**17,307**	**18,589**	**17,421**	**17,644**	**17,959**	**19,417**

(*a*) Until 1980-81 excludes division 34. (*b*) Until 1980-81 includes division 34.

IMPORTS OF GOODS (BALANCE OF PAYMENTS BASIS) AT CURRENT AND AVERAGE 1979-80 PRICES

$ million

	1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
			At current prices			
Food, beverages and tobacco	655	791	818	902	1,017	1,211
Fuels	1,129	2,091	2,715	2,987	3,087	2,209
Basic materials	620	777	821	846	728	873
Chemicals (incl. plastics)	1,168	1,552	1,563	1,813	1,769	2,155
Textiles, fabrics, etc.	826	950	978	1,094	1,009	1,304
Metals and metal manufactures	693	864	1,052	1,357	1,193	1,143
Machinery and transport equipment	5,587	5,570	7,559	9,017	8,500	9,261
Other imports	2,709	3,234	3,663	4,364	4,307	5,338
Total imports of goods f.o.b.	**13,386**	**15,829**	**19,169**	**22,379**	**21,610**	**23,494**
			At average 1979-80 prices			
Food, beverages and tobacco	724	791	830	932	935	1,033
Fuels	1,914	2,091	2,008	2,013	1,901	1,457
Basic materials	742	777	802	836	683	788
Chemicals (incl. plastics)	1,441	1,552	1,472	1,622	1,464	1,744
Textiles, fabrics, etc.	1,007	950	975	1,084	951	1,160
Metals and metal manufactures	795	864	1,026	1,244	1,004	940
Machinery and transport equipment	5,950	5,570	7,035	8,121	7,026	7,249
Other imports	3,113	3,234	3,451	3,936	3,669	4,344
Total imports of goods f.o.b.	**15,686**	**15,829**	**17,599**	**19,788**	**17,633**	**18,715**

FOREIGN OWNERSHIP AND CONTROL OF THE MINING INDUSTRY 1982–83

	Persons employed at end of June		*Value added*	
	No.	%	$m	%
Foreign ownership—				
USA	9,997	12.9	1,956.9	24.0
UK	14,733	18.9	1,313.2	16.1
Other EEC(*a*)	1,906	2.5	181.0	2.2
New Zealand	821	1.1	95.6	1.2
Switzerland	669	0.9	83.8	1.0
Japan	2,476	3.2	286.1	3.5
Other	1,814	2.3	187.5	2.3
Total	*32,416*	*41.7*	*4,104.1*	*50.4*
Australian ownership	45,339	58.3	4,042.5	49.6
Total	**77,755**	**100.0**	**8,146.6**	**100.0**
Foreign control—				
USA	7,284	9.4	1,112.5	13.7
UK	11,533	14.8	874.7	12.0
Other	1,340	1.7	158.6	1.9
Total	*20,157*	*25.9*	*2,245.8*	*27.6*
Joint foreign and Australian control	1,832	2.4	1,625.1	19.9
Naturalised or naturalising	9,431	12.1	738.2	9.1
Australian control	46,335	59.6	3,537.5	43.4
Total	**77,755**	**100.0**	**8,146.6**	**100.0**

(*a*) Belgium, Denmark, France, Federal Republic of Germany, Greece, Ireland, Italy, Luxembourg and Netherlands.

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Other information available

Special returns service: Subscribers to this service can receive computer produced printout of foreign trade statistics at a particular commodity level in one or more of a limited number of formats, for a charge consistent with the level of detail required. This service is recommended where up to fifty specific commodity items are required on a regular basis.

Microfiche service: Foreign trade statistics are also available on microfiche in a variety of tabular formats. Each tabular format covers all commodities exported or imported, at various levels of aggregation. This service is recommended where the subscriber wishes to obtain foreign trade details for a large number of commodities.

Magnetic tape: Statistics for imports, exports and import clearances are available on 9-track magnetic tape approximately 4 weeks after the end of the reference period. Documentation regarding the content and structure of these tapes is available from the ABS Trade and Shipping Section in Canberra.

To meet subscribers' needs special returns and microfiche are available on a monthly, quarterly or less frequent basis. Relevant application forms and information papers for these services are available from the ABS Trade and Shipping Section in Canberra or any ABS State office. Payment in advance is required for each of these services.

CHAPTER 25

SCIENCE AND TECHNOLOGY

Introduction

Science and technology directly influence the strength and competitiveness of industry by providing a basis for technological change and thereby encouraging economic growth and development. They can be seen as making major contributions to the achievement of many of Australia's social, economic and industrial goals.

The Government's conviction of the importance of science and technology is reflected in the role and functions of the Department of Science and Technology. Apart from having general responsibility for science and technology, the Department is concerned with the development and maintenance of Australia's scientific and technological capability. Rapid and continuing advances in key technologies such as micro-electronics and biotechnology, make it imperative that technology policy issues be co-ordinated if Australia is to improve—let alone retain—its share of world markets.

On the initiative of the Minister for Science and Technology, a National Technology Conference was organised by the Department in Canberra in September 1983; the conference was attended by representatives from industry, trade unions, universities, the CSIRO and Commonwealth and State government departments. Its aims were to achieve greater awareness of the range and speed of the technological revolution, and to work out strategies enabling Australia to profit from this revolution. The conference has provided a basis for the development of a National Technology Strategy.

The Department of Science and Technology

Scope and Policy

The portfolio of the Minister for Science and Technology covers the Department of Science and Technology (with a staff of about 3,200), the Commonwealth Scientific and Industrial Research Organization (CSIRO), the Australian Industrial Research and Development Incentives Board (AIRDIB), the Management and Investment Companies Licensing Board (MICLB), the National Standards Commission, the Australian Institute of Marine Science and the Anglo-Australian Telescope Board. The Department maintains close links with all six organisations.

The Department of Science and Technology was established in November 1980, with a brief to develop the science and technology policy roles which have been brought together for the first time in Australia's history, and to integrate those roles with the industry-oriented programs of the former Department of Productivity.

The Department advises the Minister on a range of policy issues, proposals and submissions from interested parties. It also presents submissions to Parliamentary and other inquiries of relevance to the Department's role and responsibilities. It has regular contact with other Commonwealth and State government departments and statutory authorities in order to assist integration of science, technology and innovation policies with industry, economic and social policies.

The Department helps to stimulate technology in Australia and advises the Government on policies relevant to the needs of research institutions and industry. The current programs can be grouped under the following objectives:

- to stimulate scientific research and technical development in industry, government and academic sectors;
- to facilitate the effective application of technology and the development of technologies having special significance for Australia's industrial growth;
- to facilitate invention and innovation;
- to promote Australia's interests through international co-operation in science and technology;
- to ensure that science and technology issues are considered in the development of government policies, particularly industry and economic policies;
- to improve community awareness of the benefits and disbenefits of science and technology;
- to develop Australia's role in space activities;

- to carry out Australian Government policy as it relates to Antarctica (see entry on Antarctic Division, p 601);
- to provide the national meteorological service (see entry on Meteorology, p 591);
- to provide the national ionospheric prediction service (see entry on Ionospheric Prediction Service, p 591);
- to provide a Government analytical service (see entry on Australian Government Analytical Laboratories, p 590);
- to provide a national industrial property service to Australia, and development assistance in industrial property services to developing countries under international arrangements (see entries on p 588 and p 605).

Technology Development

The Department develops and applies various programs to encourage manufacturing industry to become more competitive and export oriented. One such program is the Manufacturing Technology Development Program which fosters the development and promotion of innovative manufacturing technologies. Projects being undertaken within this program include the development of robots, photovoltaic cells and computer-aided manufacturing techniques.

Departmental activities encourage the innovative use of technology; in the field of biotechnology, for instance, the Department seeks to promote close co-operation among researchers, financiers and others interested in the commercial development of genetically engineered organisms.

An important Departmental function is the promotion of an entrepreneurial attitude to the commercialisation of new products and processes. In 1984, the Government established the Management and Investment Companies Licensing Board (the Office of the Board is part of the Department) to encourage the development of a venture capital market in Australia. Licensed management and investment companies have to invest in young high-growth companies operating mainly in defined industries; the investment involves a taxation incentive. With the Department's assistance, Innovation Centres have been established in New South Wales, Victoria, Western Australia and South Australia. The centres promote interaction between inventors and manufacturers, and give inventors access to the information, expertise, services and facilities needed to carry inventions from the initial stage of technical and economic evaluation to the market place. Similar centres are being planned in Queensland and Tasmania. As well, the Department administers the Assistance to Inventors' Scheme which supports individuals with grants and advice to develop inventions.

The Department is responsible for a number of programs aimed at transferring technology from innovative sources to manufacturers. These programs are concerned with information technology awareness, manufacturing technology transfer and the formation and support of research associations.

Financial Support for Research

The Department administers a number of funding schemes to stimulate research and development such as: the Australian Research Grants Scheme (ARGS), the Australian Industrial Research and Development Incentives Scheme (AIRDIS), Mission-oriented research, for instance through the Marine Sciences and Technologies Research Grants Scheme, and grants-in-aid.

The ARGS provides support for basic research in a range of subjects at universities and other non-government institutions. ARGS grants for 1984–85 total $22.8m. In addition, under the Queen Elizabeth II Fellowships Scheme, up to ten post-doctoral fellowships are awarded each year to young scientists to carry out full-time research in the physical or biological sciences at institutions in Australia.

Under the *Industrial Research and Development Incentives Act 1976*, three forms of assistance are available to industry: commencement grants, project grants and public interest projects. Commencement grants, each available for five years and with an annual limit of $40,000, encourage the growth of industrial R & D capability in mainly small and medium-size companies. Project grants, with an annual limit of $750,000 per company, assist companies with an established R & D capability to undertake specific and significant R & D projects. Public interest projects involve the placement of contracts by the Commonwealth for work on industrial research projects with the potential to benefit Australia. Projects in progress cover water treatment, food processing, agricultural technology, biomedical engineering, processing technologies of metals, and the use of computers and micro-electronics in heavy engineering and information applications. Total funds provided for AIRDIS grants and projects in 1984–85 are $67.5m.

The Marine Sciences and Technologies Grants Scheme assists universities and other organisations with projects involving, for example, the Great Barrier Reef, Bass Strait and the North West Shelf; Queen's Fellowships in Marine Science provide post-graduate research opportunities at Australian institutions. Through the portfolio of the Minister for Science and Technology, a total of about $25.9m was provided for marine research in 1983–84; recipients of funds included the CSIRO, the Australian Institute of Marine Science, the Department's Antarctic Division and individual research workers.

In 1983, the Government established two new schemes: the National Research Fellowships Scheme which supports research in priority areas of national interest, industry-based research and fundamental research (estimated expenditure is $2.1m in 1984–85) and the National Biotechnology Program Research Grants Scheme (estimated expenditure is $2.1m in 1984–85).

The Department also administers grants-in-aid to 'multiplier' agencies—private non-profit organisations providing a range of services to a collective membership. These agencies include research associations, the Productivity Promotion Council of Australia, the Technology Transfer Council, etc. Estimated expenditure in 1984–85 is $5.7m.

Advice and Co-ordination

National Advisory Bodies

Australia has several agencies with policy and funding responsibilities for various aspects of science and technology. In order to achieve integration of advice, relative assessment of priorities and the development of broad strategies for future directions, several national advisory bodies, in addition to government departments such as the Department of Science and Technology and the Department of Resources and Energy, have been established; the major ones are:

- The Australian Science and Technology Council;
- The National Energy Research, Development and Demonstration Council (See Chapter 18, Energy);
- The Australian Manufacturing Council.

Australian Science and Technology Council (ASTEC): ASTEC was established as a statutory authority in February 1979 under the *Australian Science and Technology Council Act 1978*. The Council reports to the Prime Minister and is the Government's principal source of independent advice on science and technology matters. As part of this role, it maintains an overview of the science and technology activities of Commonwealth Government departments and agencies, universities and private enterprise.

The functions of the Council are to investigate, and to advise the Commonwealth Government on matters relating to science and technology, such as:

- the advancement of scientific knowledge;
- the development and application of science and technology in relation to the furtherance of the national well-being;
- the adequacy, effectiveness and overall balance of scientific and technological activities in Australia;
- the identification and support of new ideas in science and technology likely to be of national importance;
- the practical development and application of scientific discoveries;
- the fostering of scientific and technological innovation in industry; and
- the means of improving efficiency in the use of resources by the application of science and technology.

Australian Manufacturing Council (AMC): The AMC was established in 1977. New arrangements, enlarging the role of the Council were instituted by the incoming Government in 1983. The Council advises the Minister for Industry and Commerce on matters of concern to the manufacturing sector and acts as a forum for discussion and consultation on such matters. In conjunction with the AMC there are eleven Industry Councils covering all major areas of the manufacturing industry.

Other official advisory bodies have been established to deal with activities, interests and responsibilities of the Commonwealth Government and its agencies, and to advise on Government support of higher education and of industry. Amongst these bodies are the National Health and Medical Research Council; the CSIRO Advisory Council and its State Committees; the Rural Industry Research Fund Advisory Committees and the Commonwealth Tertiary Education Commission.

Other Organisations

Advice to government on scientific and technological issues comes also from various learned and professional bodies. Advice may be offered on the initiative of the organisation itself or in response to an official request. For example, the Australian Academy of Science maintains a number of national and standing committees which specialise in selected broad fields of science; ad hoc advisory committees are appointed by the Academy to examine and report on specific matters.

Since 1967 the Academy has maintained a Science and Industry Forum which brings together leading scientists and industrialists to discuss topics of national significance; a complementary Science and Society Forum was inaugurated in 1973. Communication between government and the technology area of the science-technology spectrum is facilitated by the Australian Academy of Technological Sciences.

The most broadly based of the learned and professional bodies is the Australian and New Zealand Association for the Advancement of Science (ANZAAS) which is concerned with all fields of the natural and social sciences. It encourages interdisciplinary communication and information dissemination through national conferences, State programs and the bi-monthly magazine, Search.

There are a number of groups within the industry sector—e.g. the Australian Industrial Research Group (AIRG) and the Industry Councils which, from time to time, provide advice to government on specific matters.

Intergovernmental co-ordination is effected through Ministerial councils established for the purpose. While some of these councils are concerned with promoting research and scientific and technical services, they do not directly undertake research or provide services. Typical of these bodies are the Australian Agricultural Council, the Australian Minerals and Energy Council, the Australian Water Resources Council, and the Australian Environment Council. In some instances, councils have control of research funds and provide grants or arrange for projects to be undertaken in particular fields of interest.

In some scientific and technical fields not coming directly within the scope of the Ministerial councils, there are standing arrangements at agency level for consultation and co-operation (the Electricity Supply Association of Australia is an example).

The Building Research and Development Advisory Committee advises the Australian Government and its building research organisations (CSIRO Division of Building Research and the Experimental Building Station of the Department of Housing and Construction) on the research needs and priorities of the housing and construction industry. The Committee also advises the Minister for Housing and Construction on issues of research policy relating to all sectors of the industry.

The Australian Water Resources Council (AWRC) was established in 1963 and is a Commonwealth and State Ministers' forum for dealing with water resources matters. Commonwealth and State collaboration through the AWRC initially concentrated on resources assessment and research, but more recently the Council's functions have been expanded to include management and planning. The AWRC and its committees have provided an important contribution to the development of Commonwealth water policies and programs and, in many cases, provide the means of implementing them.

The Department of Resources and Energy administers a water research program, developed through the AWRC and funded by the Commonwealth at a cost of about $500,000 a year. The program covers basic and applied research into all aspects of water resources and is used to stimulate new work not handled elsewhere. The future of this program will be decided in the context of the Government's response to a recent report which recommended against the establishment of an Institute of Freshwater Studies as the most cost-effective method of addressing national water research priorities.

Resources and Services

Although power to regulate the development and utilisation of Australia's natural resources rests largely with the States, the Commonwealth Government, in part because of its jurisdiction in the control of Australia's overseas trade, also plays an important role. Extensive machinery exists for consultation and collaboration between the Commonwealth and State governments in relation to the development and management of natural resources.

Several important resources and services are dealt with elsewhere in this Year Book and are thus not included in this chapter. These include Health (Chapter 10), Agricultural Industries (Chapter 13), Forestry and Fisheries (Chapter 14), Water Resources (Chapter 15), Mineral Industry (Chapter 16), Transport and Communications (Chapter 20) and Culture, Heritage and Environment, Tourism (Chapter 26).

Soil Resources

A Standing Committee on Soil Conservation was established in 1946. It comprises the heads of soil conservation bodies in the States and representatives of the Department of Primary Industry and the CSIRO. The Committee advises the Australian Agricultural Council on matters relating to soil conservation.

Australian Government Analytical Laboratories (AGAL)

AGAL, part of the Department of Science and Technology, provides valuable chemical and microbiological research and services to assist the Commonwealth Government in protecting public health, collecting import duties, enforcing laws against importing illicit drugs and certifying the quality of exports.

With laboratories in Sydney, Melbourne, Perth, Adelaide and Hobart, AGAL conducts more than 160,000 tests a year, mainly for Commonwealth bodies such as the Department of Primary Industry (primary produce), the Australian Customs Service (goods for tariff classification, trade description, spirits, unsafe goods, fertilisers and illicit drugs) and the Department of Health (pharmaceuticals, food, narcotics, sunscreen preparations and cigarettes).

In recent years AGAL has undertaken species testing of meat; detected substitution of barramundi with cheaper fish, and adulteration of honey and spirits; examined salami sausages in connection with a food-poisoning outbreak in Victoria; and analysed imported wound dressings and locally produced powdered infant foods for bacterial contamination.

The laboratories' chemists work closely with the Australian Federal Police in analysing suspected illicit substances and drugs, and providing expert testimony in court cases. AGAL also co-operates with CSIRO, Commonwealth Serum Laboratories, National Biological Standards Laboratory, Standards Association of Australia, National Association of Testing Authorities and a number of international bodies.

The Patent, Trade Marks and Design Office

This Office is part of the Department of Science and Technology. It administers systems for the protection of inventions, the registration of trade marks and industrial designs and provides a patent information service. The Office contributes advice and expertise to other areas of the Department and to government agencies involved in encouraging inventions and technological innovation. It also represents Australia's interests in the World Intellectual Property Organization (a United Nations agency) and a number of important international treaties concerned with industrial property, notably the Patent Co-operation Treaty (PCT).

In Canberra, the Office maintains the largest technology library in the Southern Hemisphere, with some 22 million patent documents from about forty countries. Access is provided to interested persons and a selected coverage is available through the State branches.

Each year the Office examines about 8,500 patent applications, 11,000 applications for registration of trade marks and 3,300 applications for registration of industrial designs. It also issues about 250 international search reports a year for international applications under the PCT. With further computerisation of information management systems, these levels are expected to increase.

The office assists industry to extract technological information from the major industrialised nations' patent specifications. Special reports are published on patent trends and developments. Australian Patent Information Service (APIS) officers, based in Canberra, Sydney and Melbourne, further assist industry by conducting technology searches, by providing information on the activities in specialist fields and by providing general overviews of particular technology areas.

Meteorology

The Bureau of Meteorology, part of the Department of Science and Technology, operates under the *Meteorology Act 1955*. As Australia's national meteorological authority, its basic mission is to explore Australia's weather and climate and to apply the knowledge gained to the provision of meteorological services to meet Australia's national needs and international obligations.

The Bureau has an operational staff of about 1,700 personnel employed throughout Australia and its Territories (including Antarctica). It has a Head Office in Melbourne, Regional Forecasting Centres in each capital city, Canberra and Darwin, 28 Weather Service Offices at major airports and RAAF bases, and 35 observing offices at other centres.

Users of Bureau services include the general public, defence forces, civil aviation and marine authorities, and specialist groups in primary and secondary industries. Apart from forecasting services, the Bureau satisfies many requests for data from the National Climatological Data Bank.

Programs of research are carried out in support of these services, often in co-operation with other institutions concerned with atmospheric science, including universities and the CSIRO. Major research topics include numerical modelling techniques for predicting atmospheric behaviour, better use of data derived from satellites, tropical cyclones and cold fronts.

Ionospheric Prediction Service (IPS)

The Ionospheric Prediction Service Branch of the Department of Science and Technology assists users of radio communications to achieve the most effective and efficient use of radio communication which is influenced by or dependent on the ionosphere. The Branch operates ionospheric and solar observatories in Australia and Papua New Guinea, and produces radio propagation predictions and warnings of ionospheric, solar and magnetic disturbances. The IPS also conducts research into physical phenomena affecting the ionosphere and into radio wave propagation.

National Materials Handling Bureau

The National Materials Handling Bureau of the Department of Science and Technology carries out research, development and promotion relating to the application of improved materials handling, including the equipment, systems, standards, methods, management and control aspects involved in the supply, production, movement, packaging, storage and distribution of goods and materials.

Satellite Remote Sensing

In 1978 the Commonwealth Government decided to establish facilities for receiving and processing information from the US National Aeronautics and Space Administration's series of Landsat satellites. The Department of Resources and Energy operates the facilities. A data-acquisition station is located at Alice Springs, with a data-processing facility in Canberra. Additional information on Landsat stations is provided in Year Book No. 64, pp. 722-724.

Scientific and Technological Information Services

Scientific literature and technical information for scientists and technologists is provided through library and information services provided by the Commonwealth of Australia, State Government instrumentalities, tertiary institutions and industrial organisations. The more important scientific libraries and information services within the Commonwealth sector are the National Library of Australia, the CSIRO Library network and information services, and the libraries and information services maintained by the Department of Health and the Australian Atomic Energy Commission.

Several Commonwealth agencies, including the Australian Atomic Energy Commission, the Australian Road Research Board and the National Library of Australia, are now offering Australian users access to bibliographic data bases via a commercial computer servicer bureau (AUSINET). The Australian Mineral Foundation provides an earth-resource data base, also through AUSINET. The National Library of Australia and the Department of Health operate a national health information network, the Australian Medline Network. The CSIRO provides access to data bases on CSIRONET. The Overseas Telecommunications Commission (Australia) operates an international packet switched data transfer service known as MIDAS (Multi-mode International Data Acquisition Service) which is a cost-effective means of accessing international computing facilities and host computers in the Asian, American and European regions.

Another overseas trend in which Australian scientists are showing interest is the development of numerical data bases which provide quick access to factual data. The CSIRO is currently operating Thermodata, a metallurgical thermodynamic data base and other similar data bases in crystallography and mass spectra data. Similar numeric and factual data bases are at present being evaluated by other Commonwealth agencies.

A number of Australian scientific and technological indexes and directories now exist or are in the course of production by Commonwealth Government departments and agencies. Examples are:

- a computer-based register of Australian energy research, development and demonstration projects containing an outline of the objectives, methodology and status of each project. The register is maintained by the CSIRO on behalf of the Department of Resources and Energy and contains references to nearly 1,000 projects. It is used to generate annual updates of the Compendiums of Australian Energy Research Development and Demonstration Projects;
- a national directory of current Australian marine research. The Directory of Australian Marine Research in Progress is a joint publication by the Australian Institute of Marine Science, the Great Barrier Reef Marine Park Authority, the CSIRO and the Victorian Institute of Marine Sciences. The Directory identifies individuals and organisations undertaking marine research and provides details of their objectives, methodology, publications, current status and funding;
- a guide to science and technology information services available to Australian industry *Smarter Data, Stronger Firm*, published by the Department of Science and Technology. The guide lists the types of services available to industry and small business, with some advice on how to use them.
- a computerised bibliographic data base, STREAMLINE, providing references to published and unpublished documents and current research projects on all facets of water and wastewater in Australia, has been established by the Department of Resources and Energy in association with State water agencies. The data base is publicly available on AUSINET, and a regular current awareness bulletin and a directory of research projects are produced.

Units and Standards of Physical Measurement

The maintenance of Australia's standards of measurement is included in the *Science and Industry Research Act*, 1949 as one of the functions of the CSIRO. Furthermore the *Weights and Measures (National Standards) Act*, 1960 requires CSIRO to maintain, or cause to be maintained, standards of all physical quantities for which there are legal units of measurement. This statutory responsibility has devolved upon the Division of Applied Physics which has its headquarters in the National Measurement Laboratory in the Sydney suburb of Lindfield, and branch laboratories in Adelaide and Melbourne. CSIRO has authorised the Australian Atomic Energy Commission and the Australian Radiation Laboratory to maintain the Australian standards for quantities relating to ionising radiations such as radioactivity, exposure and absorbed dose. It has also authorised the Division of National Mapping (Department of Resources and Energy) and Telecom Australia to maintain working standards of time interval and frequency.

The National Standards Commission is responsible for determining the legal units and standards of physical measurement, co-ordinating the national measurement system and approving measuring instruments for use in trade.

In September 1984 the *Weights and Measures (National Standards) Act* was amended and the title changed to the *National Measurement Act*. The amendments clarified the functions of the Commission and transferred to it the responsibility for continuing the introduction of the metric system of measurement into Australia. This was previously a function of the Metric Conversion Board.

A review of the trade measurement system is being undertaken by a consultant (funded jointly by the Commonwealth and the States) to identify community and industry needs to determine the most effective method of meeting those needs.

National Information Technology Council (NITC)

The NITC was established in 1984 to continue and expand upon the work of the National Information Technology Week Committee which was created in 1979.

Recognising that the major problems relating to the transfer, ownership, adoption and employment effects of technology are not technological but social, political and cultural, the NITC has developed mechanisms to raise the level of industry and community understanding and appreciation of information technology.

The NITC is funded by the Department of Science and Technology and the Australian Computer Society. The work is administered through State committees which receive additional funding from State governments.

RESEARCH AND DEVELOPMENT

Much of the early history of Australian science was based largely on the individual achievements of a few outstanding scientists.

During and after World War I, governments in various parts of the world took initiatives aimed at encouraging scientific research and applying it to economic growth and national development; Australia was no exception. In 1926 the Council for Scientific and Industrial Research (CSIR) was established by the Commonwealth Government. Initially, it concentrated its efforts on the primary industries, typifying the trend of research in Australia at the time, when most major research initiatives were taken by Government and aimed at the primary industries. The level of research in the universities and industries remained much as before.

With the approach of World War II, however, moves were made to extend scientific support for secondary industry. In the CSIR, Divisions created in the period 1937-40 were to play an important part in the rapid development of Australian industry which occurred under the stimulus of war-time needs.

Expansion of scientific research in general, and industrial research in particular, continued after the war. This expansion extended beyond government into the universities and industry.

Though even today agricultural research absorbs a significant proportion of Australia's research effort, industrial, medical and defence research are now of major importance also. The volume of research in the social sciences and humanities remains small, although in Australia, as elsewhere in recent years, there has been increasing support for the view that adequate weight must be given in governmental policy-making to the social aspects of national proposals.

For details of expenditure and human resources devoted to research, see section below.

Expenditure and Human Resources Devoted to Research and Experimental Development

Project SCORE (Survey and Comparisons of Research Expenditures) which provided details of Australian expenditure on research and experimental development activities has been subject to a statistical review. As a result of this exercise the previously separate Project SCORE and Energy Research & Experimental Development Surveys will be amalgamated into a single biennial survey to be known as the Survey of Research and Experimental Development. The first survey, to be conducted in 1984–85, will collect some additional data items. To satisfy a need for constantly updated statistics, an Inter-Year Estimates survey will be conducted on a much smaller scale in each of the intervening years. The first such survey covering only the business enterprise sector was recently conducted for 1983–84. This survey may be extended to the remaining sectors in future cycles. It should be noted however that Project SCORE does not provide comprehensive data on all resources devoted to scientific and technological activities in Australia. Programs not covered by Project SCORE, some of which involve large expenditures, are those which have no research and development component; such programs include many of those aimed at providing scientific or technological services.

The first comprehensive survey on research and experimental development (R & D) was carried out for the financial year 1968-69. There have been four subsequent surveys, the latest being in respect of 1981-82 (1981 calendar year for the Higher Education Sector).

The estimate of gross expenditure on R & D (GERD) carried out in Australia, as derived from the results of the latest survey, is $1,522m. This represents a 44 per cent increase compared with the 1978-79 Survey. At constant (1979-80) prices, GERD has increased by 4 per cent over the same period. The total estimate of human resources devoted to R & D in Australia is 44,535 man-years; this compares with 43,643 man-years for the previous survey.

Survey Methods and Concepts. The Project SCORE surveys measure R & D expenditure and human resources in the natural and social sciences in the major sectors of the Australian economy. For the purposes of Project SCORE, four sectors are recognised: Business Enterprises (public and private business enterprises, excluding those mainly engaged in agriculture, forestry, fishing and hunting); General Government (all State and Commonwealth Government organisations but excluding Local government organisations); Higher Education (Universities and Colleges of Advanced Education), and Private non-Profit (private or semi-public organisations which are not established with the aim of making a profit). The surveys are conducted by means of mailed questionaires and, in order to provide direct comparisons with other OECD countries, follow guidelines described by the OECD for national R & D surveys. The OECD defines R & D as comprising "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications".

For further details concerning survey methods and concepts see the ABS bulletins mentioned below.

Survey Results. A summary of results for 1968-69 is given in Year Book No. 60. Results for the second survey, 1973-74 (1974 calendar year for the Higher Education Sector); the third survey, 1976-77 (1976 calendar year for the Higher Education Sector), and the fourth survey, 1978-79 (1978 calendar year for the Higher Education Sector) are given in Year Books No. 61, 64 and 67 respectively.

Detailed results for the fifth survey, 1981-82 (1981 calendar year for the Higher Education Sector) are contained in the ABS publications: *Research and Experimental Development, Business Enterprises, Australia, 1981-82* (8104.0); *Research and Experimental Development, General Government Organisations, Australia, 1981-82* (8109.0); *Research and Experimental Development, Higher Education Organisations, Australia, 1981* (8111.0); *Research and Experimental Development, All Sector Summary, Australia 1981-82* (8112.0). Results for the Private non-Profit Sector are included in catalogue 8112.0.

A summary of results from the fifth survey is presented below.

Business Enterprise Sector. The estimate of expenditure on R & D carried out in Australia by private and public business enterprises during 1981-82 is $341m at *current* prices. This represents a 39 per cent increase in expenditure compared with 1978-79. At *constant* (average 1979-80) prices, R & D expenditure is estimated to have decreased by 2 per cent over the same period.

The estimate of manpower effort devoted to R & D carried out in Australia by business enterprises during 1981-82 is 7,923 man-years. This represents a decrease of 8 per cent compared with 1978-79.

A summary of Business Enterprise R & D data for 1981-82 is shown in the tables below.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY BUSINESS ENTERPRISES EXPENDITURE AT CURRENT AND CONSTANT PRICES
($m)

	1973-74	*1976-77*	*1978-79*	*1981-82*
AT CURRENT PRICES				
Private enterprises	190.4	160.4	205.8	285.7
Public sector business enterprises	n.a.	42.4	40.0	54.8
Total business enterprises	**n.a.**	**202.8**	**245.8**	**340.5**
AT CONSTANT (AVERAGE 1979-80) PRICES				
Private enterprises	409.8	215.6	226.5	218.4
Public sector business enterprises	n.a.	54.7	44.0	45.4
Total business enterprises	**n.a.**	**270.3**	**270.5**	**263.8**

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY BUSINESS ENTERPRISES (a), BROAD INDICATORS BY INDUSTRY OF ENTERPRISE (b)

Industry of enterprise		*Enterprises that carried out R & D (number)*			*R & D expenditure ($m)*			*Man-years of effort on R & D*		
ASIC code	*Description*	*1976-77*	*1978-79*	*1981-82*	*1976-77*	*1978-79*	*1981-82*	*1976-77*	*1978-79*	*1981-82*
11-15	*Mining (excluding services to mining)*	*22*	*17*	*23*	*7.0*	*9.7*	*22.6*	*446*	*315*	*381*
	Manufacturing—									
21	Food, beverages and tobacco	69	84	69	11.6	16.1	13.1	551	545	367
23-24	Textiles, clothing and footwear	27	22	16	2.1	1.4	0.8	106	42	24
25	Wood, wood products and furniture	22	24	19	0.9	1.6	1.7	50	55	43
26	Paper, paper products, printing and publishing	16	14	12	3.3	4.1	5.3	149	144	125
27	Chemicals, petroleum and coal products	115	118	124	27.1	35.2	53.1	1,335	1,381	1,231
28	Non-metallic mineral products	32	27	22	3.8	4.2	4.8	169	154	109
29	Basic metal products	36	35	27	19.0	20.9	27.4	903	776	673
31	Fabricated metal products	74	81	80	4.0	4.5	6.7	228	198	161
32	Transport equipment	44	47	51	14.6	15.6	31.9	761	604	903
334	Photographic, professional and scientific equipment	20	16	25	4.6	6.7	5.1	232	230	160
335	Appliances and electrical equipment	129	120	156	21.1	33.1	37.2	1,209	1,234	899
336	Industrial machinery and equipment	141	128	153	8.2	8.8	14.7	425	388	413
33	Total other machinery and equipment	290	264	334	33.9	48.6	56.9	1,866	1,851	1,472
34	Miscellaneous manufacturing	57	58	65	3.5	5.9	7.3	185	210	180
C	*Total manufacturing*	*782*	*774*	*819*	*123.9*	*158.1*	*209.1*	*6,306*	*5,960*	*5,287*
	Other industries—									
F	Wholesale and retail trade	90	112	103	9.2	11.4	11.9	381	390	290
63	Property and business services	182	169	203	11.2	14.2	18.5	532	472	465
8461	Research and scientific institutions	30	29	28	11.7	13.3	21.8	504	460	464
(c)	Other n.e.c.	62	85	70	39.8	39.1	56.6	1,177	1,030	1,034
16,D-I-K-L	*Total other industries*	*364*	*395*	*404*	*71.9*	*78.0*	*108.8*	*2,594*	*2,352*	*2,255*
	Total all industries	**1,168**	**1,186**	**1,246**	**202.8**	**245.8**	**340.5**	**9,343**	**8,626**	**7,923**

(a) Excludes enterprises in ASIC Division A. (b) 1978-79 and 1981-82 data are classified by the 1978 edition of ASIC; 1976-77 data are classified by the 1969 edition of ASIC. If the 1978 edition were used to classify the 1976-77 data shown here only minor differences would occur. (c) ASIC Codes 16, D, E, G-H, 61-62, J-L excluding ASIC class 8461.

Payments and Receipts for Patent Licence Fees and other Technical Know-How—Australian business enterprises have significantly supplemented their R & D efforts by either purchasing or licensing foreign or Australian technology. This activity is largely associated with trans-national firms. The ABS has estimated that Australian enterprises paid $127m in 1981-82 for patent licences and other technical know-how, of which $124m was remitted overseas. In 1981-82 Australian business enterprises received $17m from the sale of patent licences and other technical know-how; $12m of this was received from overseas sources.

PAYMENTS AND RECEIPTS FOR TECHNICAL KNOW-HOW BY BUSINESS ENTERPRISES, PAYMENTS AND RECEIPTS BY INDUSTRY OF ENTERPRISE

($m)

Industry of enterprise		*Payments for technical know-how*			*Receipts for technical know-how*		
ASIC code	*Description*	*1976-77*	*1978-79*	*1981-82*	*1976-77*	*1978-79*	*1981-82*
	Manufacturing—						
21	Food, beverages and tobacco	2.9	4.0	14.9	0.3	0.4	–
23-24	Textiles, clothing and footwear	1.4	1.2	1.4	n.p.	n.p.	–
25	Wood, wood products and furniture	0.1	1.2	1.2	n.p.	n.p.	–
26	Paper, paper products, printing and publishing	0.5			n.p.	0.1	n.p.
27	Chemicals, petroleum and coal products	16.1	27.4	36.3	2.4	3.2	3.6
28	Non-metallic mineral products	4.0	4.4	5.6	0.7	0.9	n.p.
29	Basic metal products	3.1	4.0	7.6	1.2	0.6	2.0
31	Fabricated metal products	1.4	1.4	3.3	0.8	1.3	0.7
32	Transport equipment	7.1	10.1	10.8	0.3	0.5	2.0
334, 335	Photographic, professional and scientific equipment, appliances and electrical equipment	12.4	18.6	11.7	0.6	0.9	1.3
336	Industrial machinery and equipment	3.8	3.3	3.2	0.6	0.2	0.2
33	Total other machinery and equipment	16.2	21.9	14.9	1.2	1.1	1.5
34	Miscellaneous manufacturing	3.1	3.9	3.3	0.5	0.5	0.9
C	*Total manufacturing*	*55.8*	*79.5*	*99.2*	*7.5*	*8.8*	*11.5*
	Other industries	*13.7*	*29.1*	*27.4*	*1.7*	*6.6*	*5.9*
	Total all industries	**69.5**	**108.6**	**126.6**	**9.2**	**15.4**	**17.4**

General Government Sector. The estimate of expenditure on R & D carried out in Australia by organisations in the General Government Sector during 1981-82 is $708m at *current* prices. This represents a 51 per cent increase in expenditure compared with 1978-79. At *constant* (average 1979-80) prices, R & D expenditure is estimated to have increased by 4 per cent over the same period.

The estimate of manpower devoted to R & D carried out in Australia by general government organisations during 1981-82 is 17,683 man-years. This represents an increase of 1 per cent compared with 1978-79.

A summary of General Government R & D data for 1981-82 is shown in the tables below.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY GENERAL GOVERNMENT ORGANISATIONS
R & D EXPENDITURE AT CURRENT AND CONSTANT PRICES
($m)

General government organisations	*1976–77*	*1978–79*	*1981–82 (a)*
AT CURRENT PRICES			
Commonwealth	289.5	321.2	514.8
State	126.3	148.7	193.6
Total	**415.8**	**469.9**	**708.3**
AT CONSTANT (AVERAGE 1979–80) PRICES			
Commonwealth	398.9	380.8	403.8
State	164.6	161.7	160.0
Total	**563.6**	**542.5**	**563.8**

(a) Current price estimates for 1981-82 are not strictly comparable with those for earlier years, due to the payment for the first time by some authorities, of their contribution to staff superannuation funds. This discontinuity does not apply to the constant price estimates.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY GENERAL GOVERNMENT ORGANISATIONS
R & D EXPENDITURE AND R & D MANPOWER BY SOCIO-ECONOMIC OBJECTIVE

	R & D expenditure ($m)			*Man-years of effort on R & D*		
Socio-economic objective	*1976–77*	*1978–79*	*1981–82*	*1976–77*	*1978–79*	*1981–82*
National security (defence)	*87.6*	*89.2*	*113.2*	*4,232*	*3,826*	*3,625*
Economic development—						
Agriculture	123.7	153.3	235.9	5,872	r5,820	5,678
Forestry and fisheries	20.5	25.1	40.5	860	1,029	1,119
Mining (prospecting)—						
energy sources	4.3	2.3	12.0	201	70	244
other	10.0	10.1	9.1	397	348	236
Mining (extraction)—						
energy sources	0.1	0.8	5.0	—	24	124
other	5.8	5.7	8.7	245	214	228
Manufacturing	34.8	48.2	65.5	1,431	1,548	1,471
Construction	6.9	6.5	7.0	308	268	205
Energy	13.6	20.0	42.7	468	587	731
Transport	11.3	7.2	6.2	410	202	134
Communications	0.2	0.4	0.6	11	15	26
Economic services n.e.c.	17.6	12.0	22.6	825	494	558
Total economic development	*248.9*	*291.6*	*455.9*	*11,028*	*r10,618*	*10,754*
Community welfare—						
Urban and regional planning	3.0	1.3	2.8	128	53	81
Environment	25.4	35.1	36.7	1,163	1,166	876
Health	11.8	16.2	23.1	523	669	826
Education	2.3	1.8	2.7	162	72	99
Welfare	0.7	1.2	1.7	56	58	64
Community services n.e.c.	2.8	2.0	3.6	140	82	85
Total community welfare	*46.0*	*57.7*	*70.5*	*2,171*	*2,099*	*2,031*
Advancement of knowledge—						
Earth, ocean and atmosphere n.e.c.	18.2	8.0	34.3	511	345	542
General advancement of knowledge	15.3	23.5	34.5	594	r535	731
Total advancement of knowledge	*33.4*	*31.4*	*68.7*	*1,105*	*r880*	*1,272*
Total	**415.8**	**469.9**	**708.3**	**18,534**	**r17,424**	**17,683**

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY GENERAL GOVERNMENT ORGANISATIONS
R & D EXPENDITURE AND R & D MANPOWER BY FIELD OF SCIENCE

	R & D expenditure ($m)			*Man-years of effort on R & D*		
Field of science	*1976-77*	*1978-79*	*1981-82*	*1976-77*	*1978-79*	*1981-82*
Natural sciences—						
Physical sciences	29.0	35.9	39.9	1,248	1,072	915
Chemical sciences	19.3	21.3	25.5	711	683	562
Biological sciences	56.6	43.6	76.1	2,043	1,539	1,657
Earth sciences	35.3	41.4	73.8	1,515	1,332	1,520
Engineering and applied sciences	127.0	142.1	205.2	5,679	5,478	5,587
Agricultural sciences	122.4	163.3	252.3	5,948	6,333	6,271
Medical sciences	7.9	9.4	13.2	393	420	503
Total natural sciences	*397.6*	*457.0*	*686.1*	*17,536*	*16,859*	*17,015*
Social sciences and humanities—						
Economics	9.0	3.0	6.7	466	157	208
Education	2.5	2.1	2.8	172	82	102
Management	0.9	1.7	0.4	4.2	65	13
Political science	0.1	0.1	0.1	3	3	2
Sociology	1.3	1.4	1.8	76	60	61
Information science	1.1	1.6	5.0	52	68	122
Other social sciences and humanities	3.4	3.1	5.4	185	130	158
Total social sciences and humanities	*18.1*	*12.9*	*22.2*	*996*	*564*	*667*
Total	**415.8**	**469.9**	**708.3**	**18,534**	**17,424**	**17,683**

Higher Education Sector. The estimate of expenditure on R & D carried out in Australia by higher education organisations during 1981 is $453m at *current* prices. This represents a 39 per cent increase in expenditure compared with 1978. At *constant* (average 1979-80) prices, R & D expenditure is estimated to have increased by 7 per cent over the same period.

The estimate of manpower effort devoted to R & D carried out in Australia by higher education organisations during 1981 is 18,241 years. This represents an increase of 7 per cent compared with 1981.

A summary of Higher Education R & D data for 1981 is shown in the tables below.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY HIGHER EDUCATION ORGANISATIONS
R & D EXPENDITURE AT CURRENT AND CONSTANT PRICES
($m)

Higher education organisations	*1976*	*1978*	*1981*
AT CURRENT PRICES			
Universities	239.9	318.8	443.5
CAE's	4.2	6.7	9.0
Total	**244.1**	**325.5**	**452.5**
AT CONSTANT (AVERAGE 1979-80) PRICES			
Universities	317.9	354.8	379.3
CAE's	5.7	7.1	7.8
Total	**323.5**	**361.9**	**387.2**

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY HIGHER EDUCATION ORGANISATIONS
R & D EXPENDITURE AND R & D MANPOWER BY SOCIO-ECONOMIC OBJECTIVE

	R & D expenditure ($m)							
	Excluding university overheads(a)			*Including university overheads(a)*		*Man-years of effort on R & D*		
Socio-economic objective	*1976*	*1978*	*1981*	*1978*	*1981*	*1976*	*1978*	*1981*
National security (defence)	*0.1*	*0.2*	*0.6*	*0.3*	*0.7*	*9*	r*15*	*19*
Economic development—								
Agriculture	11.2	19.2	26.5	25.8	35.5	991	1,500	1,554
Forestry and fisheries	1.2	1.4	3.2	2.0	4.3	134	117	167
Mining (prospecting)—								
energy sources	0.2	0.2	1.4	0.3	1.8	24	17	64
other	0.4	0.7	1.4	1.1	1.8	47	62	67
Mining (extraction)—								
energy sources	0.2	0.2	0.7	0.3	1.0	18	18	44
other	0.5	1.3	1.9	1.8	2.4	44	96	104
Manufacturing	5.5	8.5	9.9	11.2	13.0	488	676	583
Construction	1.2	1.6	2.1	2.0	2.7	109	102	107
Energy	3.8	7.1	17.0	9.0	21.7	290	440	764
Transport	1.3	1.8	2.0	2.3	2.6	104	138	98
Communications	0.9	1.7	2.5	2.2	3.2	90	127	143
Economic services n.e.c.	6.4	9.6	16.8	12.2	21.0	461	644	677
Total economic development	*32.8*	*53.3*	*85.4*	*70.1*	*110.9*	*2,800*	*3,936*	*4,372*
Community welfare—								
Urban and regional planning	1.4	1.8	3.0	2.5	4.0	123	157	161
Environment	3.1	3.6	4.3	4.7	5.7	258	248	256
Health	20.5	47.4	68.2	56.9	87.3	1,412	2,484	3,345
Education	5.4	9.0	13.4	11.4	18.1	494	602	923
Welfare	1.0	2.6	4.4	3.3	5.7	73	167	202
Community services n.e.c.	3.0	6.4	8.7	8.1	11.3	184	398	427
Total community welfare	*34.4*	*70.8*	*102.0*	*86.9*	*132.1*	*2,544*	*4,057*	*5,314*
Advancement of knowledge—								
Earth, ocean and atmosphere n.e.c.	8.2	12.9	20.1	17.6	26.3	700	1,011	1,019
General advancement of knowledge	108.9	116.3	135.9	150.7	182.4	9,233	8,030	7,516
Total advancement of knowledge	*117.1*	*129.3*	*156.0*	*168.2*	*208.7*	*9,933*	*9,040*	*8,535*
Total	**184.3**	**253.6**	**344.0**	**325.5**	**452.5**	**15,290**	**17,047**	**18,241**
Universities' contribution	180.1	246.9	335.1	318.8	443.5	14,929	16,521	17,699
CAEs' contribution	4.2	6.7	9.0	6.7	9.0	361	526	542

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY HIGHER EDUCATION ORGANISATIONS
R & D EXPENDITURE AND R & D MANPOWER BY FIELD OF SCIENCE

	R & D expenditure ($m)							
	Excluding university overheads(a)			*Including university overheads(a)*		*Man-years of effort on R & D*		
Field of science	*1976*	*1978*	*1981*	*1978*	*1981*	*1976*	*1978*	*1981*
Natural sciences—								
Physical sciences	21.4	27.6	38.4	34.4	49.1	1,485	1,638	1,672
Chemcial sciences	14.4	18.3	22.1	23.9	29.1	1,136	1,261	1,143
Biological sciences	29.6	43.4	53.9	56.5	73.2	2,518	2,976	3,089
Earth sciences	9.0	10.3	14.4	13.6	18.8	748	750	648
Engineering and applied sciences	19.6	28.0	40.0	36.2	51.4	1,786	2,073	2,145
Agricultural sciences	11.3	18.1	25.2	24.7	33.7	1,096	1,380	1,428
Medical sciences	25.9	38.6	47.3	45.2	59.7	1,692	1,802	2,274
Total natural sciences	*131.2*	*184.3*	*241.3*	*234.5*	*315.1*	*10,461*	*11,879*	*12,399*

For footnotes *see* end of table.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY HIGHER EDUCATION ORGANISATIONS—*continued*

	R & D expenditure ($m)							
	Excluding university overheads(a)			*Including university overheads(a)*		*Man-years of effort on R & D*		
Field of science	*1976*	*1978*	*1981*	*1978*	*1981*	*1976*	*1978*	*1981*
Social sciences and humanities—								
Economics	6.4	10.0	12.3	12.1	15.2	463	507	462
Education	6.8	7.9	11.7	11.0	16.2	681	790	891
Management	0.7	0.8	3.1	1.0	3.7	40	61	120
Political science	1.5	3.7	5.6	4.8	7.4	121	259	297
Sociology	2.1	3.5	5.0	4.7	6.7	215	274	257
Other social sciences and humanities	35.6	43.4	65.1	57.4	88.3	3,308	3,280	3,813
Total social sciences and humanities	*53.1*	*69.3*	*102.7*	*91.0*	*137.4*	*4,828*	*5,169*	*5,840*
Total	**184.3**	**253.6**	**344.0**	**325.5**	**452.5**	**15,290**	**17,047**	**18,241**

(a) University overhead R & D expenditure is an estimate of the R & D component of capital and current expenditures associated with academic services and general university services. See catalogue 8111.0 for further details.

Private Non-Profit Sector. The estimate of expenditure on R & D carried out in Australia by Private non-Profit organisations during 1981-82 was $21m at *current* prices. This represents a 66 per cent increase in expenditure compared with 1978-79.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY PRIVATE NON-PROFIT ORGANISATIONS, R & D EXPENDITURE AND R & D MANPOWER BY SOCIO-ECONOMIC OBJECTIVE

	R & D expenditure ($'000)			*Man-years of effort on R & D*		
Socio-economic objective	*1976–77*	*1978–79*	*1981–82*	*1976–77*	*1978–79*	*1981–82*
National security (defence)	–	–	–	–	–	–
Economic development—						
Agriculture	95	30	36	6	1	3
Forestry and fisheries	–	75	–	–	1	–
Mining (prospecting)—						
energy sources	–	–	–	–	–	–
other	–	–	–	–	–	–
Mining (extraction)—						
energy sources	–	–	–	–	–	–
other	–	–	–	–	–	–
Manufacturing	13	–	–	1	–	–
Construction	–	–	–	–	–	–
Energy	16	10	3	3	1	1
Transport	35	68	196	2	3	12
Communications	–	–	–	–	–	–
Economic services n.e.c.	70	169	512	4	6	18
Total economic development	*229*	*352*	*747*	*16*	*13*	*34*
Community welfare—						
Urban and regional planning	21	35	–	1	4	–
Environment	2	9	–	2	–	–
Health	8,863	9,979	17,758	476	448	563
Education	990	1,554	1,739	59	65	63
Welfare	44	61	420	4	4	22
Community services n.e.c.	116	2	35	5	1	1
Total community welfare	*10,036*	*11,641*	*19,952*	*547*	*522*	*649*
Advancement of knowledge—						
Earth, ocean and atmosphere n.e.c.	6	150	–	–	3	–
General advancement of knowledge	442	422	210	16	9	6
Total advancement of knowledge	*448*	*572*	*210*	*16*	*12*	*6*
Total	**10,712**	**12,566**	**20,909**	**579**	**546**	**688**
Total Expenditure at constant (1979-80) prices ($m)	13.8	13.7	16.9			

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY PRIVATE NON-PROFIT ORGANISATIONS, R & D EXPENDITURE AND R & D MANPOWER BY FIELD OF SCIENCE

	R & D expenditure ($'000)			*Man-years of effort on R & D*		
Field of science	*1976–77*	*1978–79*	*1981–82*	*1976–77*	*1978–79*	*1981–82*
Natural sciences—						
Physical sciences	76	105	183	4	2	6
Chemical sciences	118	112	67	6	2	2
Biological sciences	1,327	2,277	1,668	68	83	48
Earth sciences	11	21	3	1	–	1
Engineering and applied sciences	71	187	220	5	6	14
Agricultural sciences	2	36	36	–	2	3
Medical sciences	7,465	7,898	15,962	397	370	510
Total natural sciences	*9,070*	*10,636*	*18,139*	*481*	*465*	*583*
Social sciences and humanities—						
Economics	24	134	413	1	3	15
Education	1,000	1,557	1,743	60	65	58
Management	5	–	5	–	–	–
Political science	–	–	–	–	–	–
Sociology	121	91	73	11	8	4
Information science	–	9	40	–	1	1
Other social sciences and humanities	492	138	497	25	5	28
Total social sciences and humanities	*1,642*	*1,930*	*2,770*	*97*	*81*	105
Total	**10,712**	**12,566**	**20,909**	**579**	**546**	**688**

Major Government Research Agencies

Information on the science and technology activities and expenditures of Commonwealth Government Ministries and their agencies is provided in the *Science and Technology Statement 1983-84*. Total science and technology expenditures projected by the Commonwealth Government in 1983-84 are shown as $1,722m, of which $988m was allocated to research and experimental development.

Commonwealth Scientific and Industrial Research Organization (CSIRO)

The CSIRO is the largest scientific research organisation in Australia. On 30 June 1984 it had a total staff of 7,270 people located in more than 100 laboratories and field stations throughout Australia. About one-third of the staff are scientists.

It is a statutory body established by the *Science and Industry Research Act 1949*. Under the Act, CSIRO replaced the former Council for Scientific and Industrial Research, established in 1926. The organisation was restructured by amendments to the Act in 1978.

Briefly, the functions of CSIRO are:

- conduct of scientific research and application of the results;
- research training and funding;
- maintenance of measurement standards;
- publication and dissemination of scientific information.

When the organisation was first set up, its research centred on solving the problems then facing agriculture and industry. Today, its research extends not only to those areas but into others affecting every Australian—the environment, human nutrition, energy, water resources and information technology.

CSIRO is governed by an Executive comprising three full-time members, including the Chairman, and five part-time Members. An Advisory Council and advisory committees in each State and the Northern Territory, have members appointed to represent the range of interests in the Australian community.

CSIRO's research is carried out in some forty-one Divisions and two smaller units, grouped into the following five Institutes.

Institute of Animal and Food Sciences: Divisions of Animal Health, Animal Production, Fisheries Research, Food Research, Human Nutrition, Molecular Biology, Tropical Animal Science, Australian National Animal Health Laboratory, Wheat Research Unit.

Institute of Biological Resources: Divisions of Entomology, Forest Research, Horticultural Research, Centre for Irrigation Research, Plant Industry, Soils, Tropical Crops and Pastures, Water and Land Resources, Wildlife Research, Laboratory for Rural Research.

Institute of Energy and Earth Resources: Divisions of Energy Chemistry, Energy Technology, Fossil Fuels, Geomechanics, Groundwater Research, Mineral Chemistry, Mineral Engineering, Mineral Physics, Mineralogy.

Institute of Industrial Technology: Divisions of Applied Organic Chemistry, Building Research, Chemical and Wood Technology, Manufacuring Technology, Protein Chemistry, Textile Industry, Textile Physics.

Institute of Physical Sciences: Divisions of Applied Physics, Atmospheric Research, Chemical Physics, Computing Research, Environmental Mechanics, Materials Science, Mathematics and Statistics, Oceanography, Radiophysics.

The main role of the Organisation is to plan and execute a comprehensive program of general scientific reseach on behalf of the Commonwealth.

Research is carried out mainly in the physical and biological sciences, with the emphasis on strategic research. Strategic research is undertaken to achieve practical results and is characterised by its orientation towards the basic research end of the research and development spectrum.

The transfer of research results into commercial use or other beneficial applications is a principal aim of CSIRO. Other activities are undertaken to the extent that they can be carried out conveniently in conjunction with the Organization's main research and technology transfer activities.

Areas of research presently designated as growth areas are:

- Biotechnology;
- Advanced materials;
- Manufacturing technologies;
- Information technologies;
- Water and soils;
- Plant pathology;
- Oceanography.

In 1983–84, CSIRO had a budget of approximately $378m. About ninety per cent of CSIRO's funds comes directly from the Australian Government and trust funds concerned with various primary industries.

Australian Government Analytical Laboratories (AGAL)

See entry on page 590.

Antarctic Division, Department of Science and Technology

Australia has been active in research and exploration in the Antarctic region since early this century, but the overall effort has expanded appreciably since 1947 when the Government established the Australian National Antarctic Research Expeditions (ANARE) co-ordinated by the Antarctic Division of the Department of Science and Technology.

The Antarctic Division formulates and develops Australia's policies on Antarctic matters consistent with Government objectives; administers the Australian Antarctic Territory and the sub-Antarctic islands under Australian jurisdiction; organises and provides logistic support for the ANARE, including establishment and maintenance of the Antarctic stations at Casey, Davis and Mawson and the sub-Antarctic station at Macquarie Island; and plans and conducts scientific programs approved by the Antarctic Research Policy Advisory Committee (ARPAC).

The Australian Antarctic scientific program encompasses research in marine and terrestrial biology, oceanography, earth sciences, glaciology, cosmic ray and upper atmosphere physics, meteorology, bathymetry, medical research, surveying and mapping. Each year, the Antarctic Division, universities and private and public research organisations are invited to submit research proposals to ARPAC.

Australia is a signatory to the Antarctic Treaty, and many of its scientific activities in Antarctica are undertaken in collaboration with other signatory countries.

Bureau of Meteorology

See entry on page 591.

Australian Institute of Marine Science (AIMS)

The AIMS is located on a 190 hectare site within a national park at Cape Ferguson, 50 kilometres south of Townsville in North Queensland. Comprehensive facilities include laboratories, lecture theatre, library, computer centre, administrative and other support services, a harbour and an ocean-going research vessel.

The Institute's main function is to undertake research; in this regard its activities focus on contributing to an understanding of the tropical marine environment and its associated living communities. Attention is currently concentrated on coral reef and mangrove ecosystems. A multidisciplinary approach is taken to investigate the character of these systems and the manner in which their productivity, diversity, stability and other essential attributes are affected by environment, adaptation and ecological interactions. A significant proportion of the Institute's investigations is undertaken by external collaboration, with an active visiting investigator program being an important means of achieving that objective. The interests of the research staff are necessarily diverse and include physical oceanography, marine chemistry and various aspects of biology, from biochemistry to trophodynamic ecology.

Defence Science and Technology Organisation (DSTO)

The DSTO, part of the Department of Defence, conducts a significant amount of research and development, mainly in engineering and the physical sciences. Current expenditure is about $160m per year. Further details on the work of the organisation, and its ten research and testing establishments are found in Chapter 4, Defence.

Australian Atomic Energy Commission (AAEC)

For information on the AAEC see Chapter 18, Energy.

Engineering Division, Department of Housing and Construction

To support its operations as the major design and construction authority for the Commonwealth, the Department of Housing and Construction carries out applied research and laboratory testing and provides a comprehensive range of technical services. In many cases, these services directly or indirectly benefit the needs of private industry and the public.

Research and special testing is conducted mainly by the Engineering Division at establishments such as the Experimental Building Station in Sydney, which specialises in building and building components, and the Central Investigation and Research Laboratory in Melbourne, which specialises in engineering materials and products. The Experimental Building Station undertakes sponsored tests for industry for a fee.

Ionospheric Prediction Service

See entry on page 591.

Telecom Australia Research Laboratories

Telecom Australia maintains significant facilities and a staff of approximately 500 for the performance of research and development in telecommunications science and technology.

The primary objective of Telecom's research and development is to evaluate world advances in telecommunications services and systems so that it can select those best suited to the Australian environment. It also applies its research and development facilities to the solution of technical problems arising in the operation of the Australian telecommunications network. Its research and development is co-ordinated with that of industry and academia involved in telecommunications; Telecom supports their efforts with R & D contracts and grants made through the Australian Computer Research Board and the Radio Research Board.

Research in Universities and Colleges of Advanced Education

The Commonwealth Government is the primary source of funding for research activities in universities. Over half of Commonwealth funding is provided under the *States Grants (Tertiary Education Assistance) Act* which is administered by the Commonwealth Tertiary Education Commission. The general recurrent grants received by universities incorporate funding for research purposes. In addition, special research grants are available for members of academic staff to develop their research activities, for the training of research workers and for post-doctoral fellowships.

The Government is continuing to fund nine Special Research Centres at a cost of $16.5 million over the 1985-87 triennium. These centres were established in 1981 in various universities under the then Commonwealth Program for the Promotion of Excellence in Research.

Over the 1985-87 triennium a further $3 million in Commonwealth funds will enable new Key Centres of Teaching and Research to be established in universities and CAEs, to provide high level activity in key fields important to national objectives.

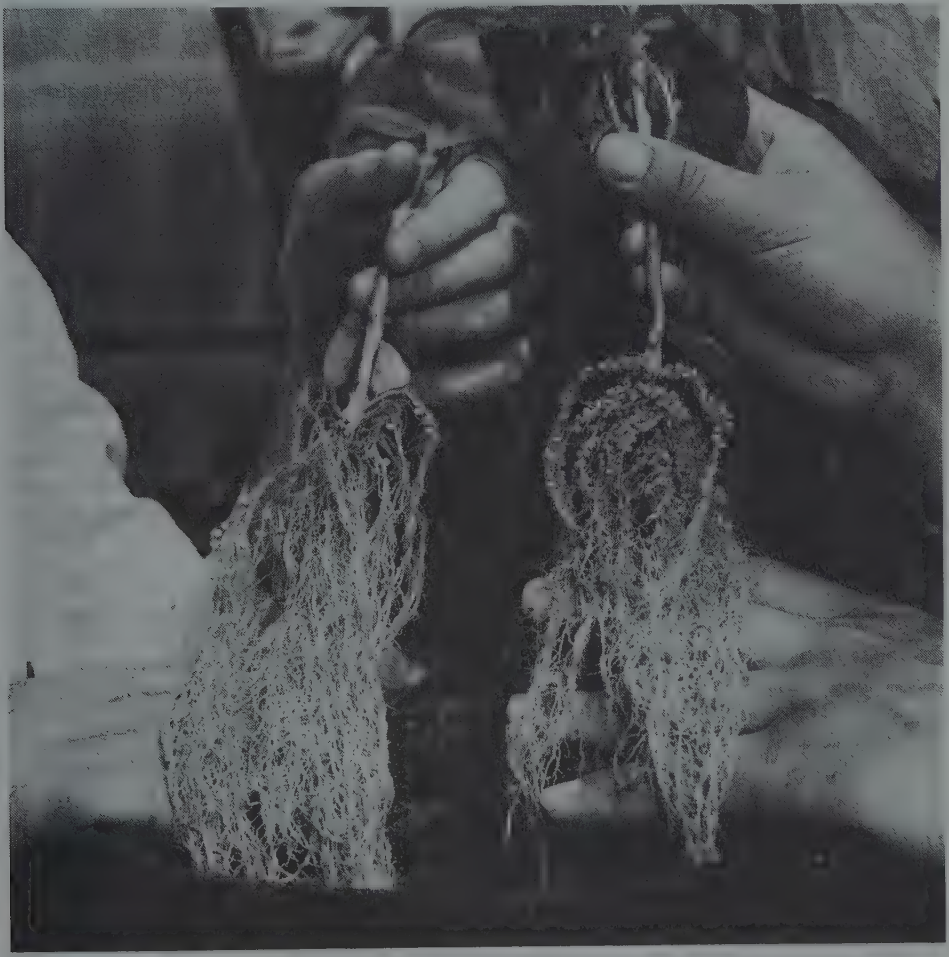
Apart from Key Centres of Teaching and Research, CAEs do not receive special funding for research purposes under the *States Grants (Tertiary Education Assistance) Act*. However, individual members of academic staff are encouraged to seek support for applied research.

Research Organisations Associated with Education Insitutions

In recent years there has been an increase in outside support for research in universities and colleges of advanced education. One source has been research contracts for specific projects from government and industry.

A number of the tertiary education institutions have established independent, commercial companies to promote and manage research and consultancy services to industry, commerce, government and the community. Examples are: Unisearch Ltd, associated with the University of New South Wales; ANUTECH Pty Ltd, associated with the Australian National University; Wait-Aid Ltd, associated with the Western Australian Institute of Technology; Technisearch Ltd, associated with the Royal Melbourne Institute of Technology; SAARD, associated with the Swinburne Institute of Technology; Techsearch Inc., associated with the South Australian Institute of Technology; and The University of Newcastle Research Association.

These organisations play an important role in promoting communication between the Higher Education and other sectors. They undertake investigational and research projects and provide consultancy, technical information and testing services in a range of fields including engineering, management, marketing and the social sciences.



Scientists at the Australian National University have developed a genetic mutant of the soybean which grows a 'super nodulating' root system and increases the plant's ability to fix nitrogen. The 'super nodulation' root system is on the right. It has a more expansive and abundant root system than the untreated plant shown on the left.

Australian National University

Social Science and Humanities Research

Research in the social sciences and humanities is undertaken primarily in universities ($137m out of an Australian total of $162m for 1981-82). Support for this research comes both from general funds, provided to the universities and from specific granting schemes such as the ARGS.

The bulk of the social science and humanities research carried out within Commonwealth Government agencies is performed as part of the general activities of various departments. In addition, several other Commonwealth Government agencies have an active interest in either sponsoring or undertaking such research. These include the Australian Institute of Aboriginal Studies, the Australian Institute of Criminology, the Bureau of Industry Economics, the Bureau of Agricultural Economics, the Bureau of Transport Economics, the Bureau of Labour Market Research, the Institute of Family Studies and the Australian Institute of Multicultural Affairs.

Agencies of the various State governments undertake research relevant to their own activities. A number of research organisations in the transport sphere are funded from both Commonwealth and State sources. The Australian Road Research Board and the Australian Railway Research and Development Organisation are active in social science research.

Exchange of ideas and information on the social sciences is promoted through a number of professional and learned bodies, of which the Australian and New Zealand Association for the Advancement of Science and the Academy of Social Sciences in Australia are the most broadly based. In addition to encouraging the advancement of the social sciences, the Academy sponsors and organises research, subsidises publications and acts as a consultant and advisor in the social sciences field.

Non-government bodies which undertake or promote research in specific fields of the social sciences include the Australian Institute of International Affairs, the Australian Institute of Urban Studies, and the Australian Institute of Political Science.

International Activities

International Organisations

Australia participates in a range of programs and projects of United Nations and other organisations (UNESCO, OECD, United Nations Economic Program, World Meteorological Organisation, World Intellectual Property Organisation and International Atomic Energy Association) and in the activities of both governmental and non-governmental scientific organisations. To facilitate scientific and technological liaison, the Commonwealth Government has scientific representation at Tokyo and Paris (OECD); representatives in London, Washington and Bonn will be appointed in 1985. In November 1982, Australia was elected a member of the Intergovernmental Oceanographic Commission Executive Council. Australia also participates in regional collaborative programs organised by the Economic and Social Commission for Asia and the Pacific, the Association of South-East Asian Nations (ASEAN), the Association for Science Co-operation in Asia, the Commonwealth Science Council and the Pacific Science Association. Technical assistance is provided for countries in the region under both multilateral and bilateral arrangements.

Participation in international non-governmental scientific bodies is arranged through learned and professional bodies. For example, the Australian Academy of Science provides representation to the International Council of Scientific Unions (ICSU) and a number of its affiliated bodies.

Antarctic Treaty and Conservation of Antarctic Marine Living Resources

In 1957, as part of the International Geophysical Year (IGY), twelve nations including Australia co-operated in research programs in Antarctica. The outstanding co-operation between nations in the Antarctic during the IGY resulted in discussions which culminated in the establishment of the Antarctic Treaty. It was signed on 1 December 1959 by the nations that had been active in Antarctica during the IGY, including all of those with territorial claims. The original signatories were Argentina, Australia, Chile, France, New Zealand, Norway, UK (all claimants), Belgium, Japan, South Africa, the USSR and the USA (all non-claimants). The Treaty, which was ratified by Australia in 1961, among other things reserves the Antarctic area south of 60°S latitude for peaceful purposes, provides for international co-operation in scientific investigations and research, and preserves for the duration of the Treaty the legal positions of claimants and non-claimants with regard to territorial sovereignty, rights and claims.

The Treaty makes provision for other states to accede to it. Sixteen nations have acceded: Poland, German Democratic Republic, Czechoslovakia, Romania, Denmark, the Netherlands, the Federal Republic of Germany, Papua New Guinea, Peru, Italy, Uruguay, Bulgaria, China, Brazil, India and Spain. Poland, the Federal Republic of Germany, India and Brazil have been accorded consultative status.

Australia hosted the first Antarctic Treaty Consultative Meeting in July 1961 and the twelfth in September 1983. Observers from the contracting parties to the Treaty, which are not also consultative parties, were invited for the first time to the twelfth meeting held in Canberra in September 1983.

The consultative parties have formulated a number of measures to protect the Antarctic environment and ecosystem. The environment of the Australian Antarctic Territory is protected by the *Antarctic Treaty (Environment Protection) Act 1980*, and by recommendations of Treaty meetings that the Australian Government has adopted.

At a diplomatic conference in Canberra in May 1980 the Treaty consultative partners adopted the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). The Convention establishes the basis for a conservation and management regime for the entire ecosystem of the area south of the Antarctic Convergence (about 45° to 56°S). The headquarters of the CCAMLR Commission, established under the Convention, is in Hobart. Fifteen nations and the European Community have signed the Convention which is open to accession by any country. Australia was elected to provide the first Chairman of the Commission, and an Australian has been appointed as first Executive Secretary.

Australia is also participating in meetings to negotiate a regime to regulate exploration for and exploitation of Antarctic minerals. The first meeting was held in Wellington, New Zealand, in June 1982. The most recent meeting was in Tokyo in May 1984.

Studentships and Fellowships

Australia has assisted other countries, principally in the Asian and Pacific regions, by training their nationals. Large numbers of such students, mainly seeking first qualifications at tertiary level, have been accommodated under schemes such as the Colombo Plan. There are also arrangements under which established scientists from overseas are assisted to undertake study and research in Australia.

Bilateral Arrangements

Various bilateral arrangements at both government and non-government levels have contributed to the development and maintenance of co-operation in science and technology between Australian institutions and scientists and those in other countries. Formal bilateral agreements, administered by the Department of Science and Technology, reflect two major aspects: the importance of a regular flow of scientific and technological information into Australia; and the significance of Australian science, technology and industrial property systems in assisting the economic growth of less developed countries. These agreements, solely devoted to scientific and technological co-operation, have been entered into with the USA (1968), India (1975), the USSR (1975), the Federal Republic of Germany (1976), Japan (1980), the Peoples Republic of China (1980) and Mexico (1981). Support is provided for both individual visits and specialist seminars over the whole range of civil science. Where opportunities exist, other co-operative projects which depend on special facilities are supported.

A scientific exchange program between the Australian Academy of Science and the Academia Sinica of Beijing was initiated in 1977. Scientific fields considered most promising are plant physiology, entomology, earth science and radio astronomy.

Visits to Japan and China by Australian scientists can be supported by the Australia/Japan Foundation and the Australia/China Council respectively.

Meteorology

Australia is a member of the World Meteorological Organization (WMO), with the Director of Meteorology being Australia's Permanent Representative on WMO.

Optical Astronomy

The Anglo-Australian Telescope Board was established under the provisions of an international agreement between Australia and the United Kingdom and draws its funds in equal shares from each country. It operates the 3.9 metre Anglo-Australian Telescope at Siding Spring Mountain near Coonabarabran in New South Wales; the Telescope is amoung the largest in the world and came into full scientific operation during 1975. Its technical excellence and the scientific work which it has made possible have made it widely recognised as one of the world's foremost optical telescopes.

Space

An agreement by the Governments of Australia and the USA to co-operate in the establishment and operation in Australia of space vehicle tracking stations was signed in 1960 and has been renewed since then at ten-year intervals. The agencies for the Australian and US Governments are the Department of Science and Technology and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space program, the Australian stations track spacecraft in their orbits around the earth or on their journeys into space, receive telemetred data from the spacecraft, and relay radio commands controlling the spacecraft.

The Department of Science and Technology is responsible for managing, staffing and operating the tracking stations on behalf of NASA. The stations are located at Orroral Valley and Tidbinbilla in the Australian Capital Territory and at Yarragadee in Western Australia. A communications system links them with control centres in the US.

Expenditure by NASA on its tracking station operations in Australia in 1983-84 was about $16.6m.

An agreement was signed in 1979 between the Commonwealth Government and the European Space Agency (ESA) for the establishment and operation of a space vehicle tracking facility in Australia in support of ESA programs. The facility is located at the site of the Overseas Telecommunications Commission (Aust.) earth station at Carnarvon, W.A. Arrangements have been made with ESA for CSIRO's Parkes radio telescope to be used to support ESA's Giotto spacecraft which will try to intercept Halley's Comet in March 1986.

The tracking facilities at Tidbinbilla. In the foreground is the 64m antenna Behind the station stands a 34m antenna

Department of Science

Seismology

A comprehensive seismic station at Alice Springs (Joint Geological and Geophysical Research Station) is operated jointly under an agreement between the Governments of Australia and the United States of America. The agencies for the Governments are, respectively, the Department of Resources and Energy and the United States Air Force.

The station provides continuous seismic records to assist the United States Government in the identification of underground nuclear explosions and provides seismic records to the Bureau of Mineral Resources. Records are also available, through the Department of Resources and Energy, to Australian scientists for research in earth physics.

Defence

In the field of defence science, Australia collaborates with other countries through a variety of arrangements at intergovernmental level. Futher information including defence science technology arrangements is given in Chapter 4, Defence.

Transport

Through a variety of arrangements at intergovernmental level, Australia is represented at Federal and State levels in a number of international organisations concerned with transport research. Further information is given in Chapter 20, Transport and Communications.

Other

At the non-governmental level, formal arrangements for scientific co-operation with counterpart institutions in other countries have been concluded by a number of Australian bodies. For example, an arrangement covering co-operation in astronomy exists between the University of Sydney and Cornell University (USA), while over a broader area the Australian National University has an arrangement with the University of Moscow which includes exchanges in the scientific fields.

Additional information

Additional information on topics presented in this chapter may be found in the annual reports of the organisations mentioned, particularly the Department of Science and Technology, the CSIRO and its divisions, the Australian Atomic Energy Commission and the Department of Defence and in the annual *Science and Technology Statements*. Statistical information for the years 1968-69, 1973-74 and 1976-77 may be found in the reports published by the Department of Science and Technology on Project SCORE. Statistical information relating to 1978-79 and to 1981-82 may be obtained from the Australian Bureau of Statistics (ABS). See paragraphs on expenditure and human resources devoted to Research and Experimental Development (in this chapter) for details of ABS publications.

Earlier information on manufacturing industry research and development is contained in the report of the Industries Assistance Commission, *Inquiry into Certain Budgetary Assistance to Industry*, March 1982. In addition, information is contained in the annual reports of the Australian Industrial Research and Development Incentives Board. For reports published prior to 1982 see previous editions of the Year Book.

In 1984 the OECD, at Australia's request, examined ways in which Australian science and technology policies may be developed in the next five years, with particular attention to existing aims, to strengthen Australia's scientific and technological capabilities, develop new and revitalised industries and achieve greater co-ordination between science and technology policies and economic, industry, education, manpower and social policies. The OECD response is due to be published in 1985.

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CHAPTER 26

CULTURE, ENVIRONMENT, RECREATION AND TRAVEL

In recent years public interest in quality of life issues—cultural affairs, heritage, environment—has increased markedly. The Commonwealth Government has accepted national responsibility for these matters and through its Department of Home Affairs and Environment and a range of statutory bodies undertakes many initiatives to protect Australia's heritage and environment and to promote the arts, national arts institutions and the film and television industries.

The Department has a policy rather than operational orientation, being responsible primarily for advice to the Government on the general direction of policies and programs in the areas it covers. The operational activities are conducted by the many statutory authorities and other bodies within the Home Affairs and Environment Portfolio. These cover a very broad and diverse spectrum and include the Australia Council, the Australian Film Commission, the Australian Heritage Commission, the Australian National Gallery, the Museum of Australia, the National Library of Australia, the Australian Bicentennial Authority and the Australian National Parks and Wildlife Service.

CULTURAL ACTIVITIES

The arts in Australia receive considerable financial support from the Commonwealth Government. This support is complemented by State, Territory and Local Government funding mechanisms. These tiers of government now provide funds for virtually all aspects of artistic and cultural life—theatre, music, literature, painting, crafts, sculpture, Aboriginal arts, film, radio and television broadcasting and libraries, art museums and performing arts centres. Major arts facilities have opened in Canberra, Sydney, Melbourne, Brisbane, Perth, Adelaide and Darwin. A significant growth in the number of regional art museums and performing arts centres has also occurred. In the past decade an increased number of major international art exhibitions have toured to capital cities, the importance of community arts has gained recognition and there has been a renaissance of the Australian film industry.

Governments in Australia have thus assumed the function of public patrons of the arts, justified on the grounds that many culturally important and socially enriching activities would not take place unless public funds were provided.

The Commonwealth Government formulates policy guidelines for the support of the arts generally and allocates funds annually to the national arts institutions under its jurisdiction. Commonwealth/State consultation on cultural matters takes place through such bodies as the Cultural Ministers Council, the Australian Libraries and Information Council and the Advisory Committee on National Collections.

Australia Council

The Australia Council is the Commonwealth Government's chief funding body and policy adviser for the arts. Established as a statutory authority in 1975, its responsibilities are detailed in the *Australia Council Act 1975*. Broadly speaking the Council's brief is to formulate and carry out policies to help raise the standards of the arts in Australia, to enable and encourage more Australians to become involved in the arts and to enable Australians and people in other countries to become aware of Australia's cultural heritage and achievements. Artists and arts organisations are assisted financially by the Council through its specialist art form Boards in Aboriginal Arts, Community Arts, Crafts, Design Arts, Literature, Music, Theatre and Visual Arts.

The Council also maintains several other programs in support of International Activities, Multicultural Arts, Education and the Arts, Youth Arts, Artists in the Community, and Working Life.

Membership of the Council is intended to represent a broad cross-section of the arts community as well as to ensure access to knowledge and experience relevant to the work of the Aboriginal Arts.

ALLOCATION OF FUNDS FOR PROGRAMS, BOARDS AND ADMINISTRATION OF THE AUSTRALIA COUNCIL, 1984-85
($'000)

Boards	
Aboriginal Arts	2,350
Community Arts	3,080
Crafts	1,850
Design Arts	470
Literature	2,590
Music	10,530
Theatre	11,650
Visual Arts	2,060
Total boards	*34,580*
Programs	
Arts and Information	410
Inter-Arts	410
International	230
Policy/Research	230
Touring and Access	830
Incentive (Central)	10
Total programs	*2,120*
Total support for the arts	36,700
Administration	6,880
Total appropriation	**43,580**

Aboriginal Art

The Aboriginal Arts Board supports activities involving the preservation and continuation of traditional cultural practices and their associated arts forms as well as the generation of new artistic expression among Aboriginal people in urban and country areas.

Community Arts

The Community Arts Board assists community involvement by encouraging the development of the closer integration of arts practice into everyday life and growth of an independent culture that reflects the diverse composition of Australian society.

Crafts

The Crafts Board encourages continuing improvement in the quality of crafts practised in Australia and provides greater opportunities for craftspeople to further their professional development.

It fosters wider community access to the crafts and promotes an awareness of Australian crafts overseas and of work of other countries in Australia.

Design Arts

The Design Arts Board, established in April 1984, encourages excellence in design in architecture, the performing arts, engineering, fashion and textiles, industry, interior design, landscape architecture and planning.

Literature

The Literature Board encourages all forms of Australian creative writing through direct grants to writers and the subsidising and promotion of the resultant works. More than half of the Board's annual expenditure goes in grants to writers to meet travel, research and other expenses.

Music

The Music Board encourages and supports the development of music in Australia and the promotion of Australian music and musicians overseas. Financial assistance is provided by the Board for a range of musical activities grouped under four main headings: Composition, Documentation, Community Development and Music Education and Performance.

Australia has eight fully professional orchestras which include a symphony orchestra in each State capital city. They are managed by the Australian Broadcasting Corporation. The other two, the Elizabethan Theatre Trust Orchestras, are predominantly engaged in work with The Australian Opera (Sydney) and The Australian Ballet (Melbourne).

Theatre

The aim of the Theatre Board is to improve the quality of the content, performance and production of dance, drama, puppetry, mime and youth theatre and to ensure maximum public access to them.

The Board provides opportunities for professional theatre people to develop their skills, encourages growth in theatre attendance and promotes community involvement in live theatre.

It provides continuing support for some 66 drama, dance, puppetry, mime and youth companies which attract audiences running into millions annually.

Visual Arts

The Visual Arts Board provides assistance to individuals and organisations working across a wide spectrum of the visual arts in Australia, from painting and sculpture to museology. Its programs include grants to individuals, the commissioning and placing of works of art in public places, research and writing on the visual arts, support for artists in residence and the acquisition, exhibition and conservation of works of art.

Commonwealth Schemes in Support of the Arts

Artbank

Artbank is a unit of the Department of Home Affairs and Environment set up to encourage Australian artists through the purchase and public display of their work, thereby complementing other Commonwealth art support schemes. Since its inception in 1980 the Artbank collection has grown to more than 3000 works, including painting, artists' prints, sculpture, photography, Aboriginal art, and craft.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 to secure portraits of distinguished Australians who took an active part in Federation. Later the Committee decided to obtain portraits or other representations of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, Chief Justices of the High Court of Australia and other distinguished Australians. In addition, the Committee has commissioned paintings or other representations recording special events connected with the Commonwealth Parliament and, more recently, the High Court of Australia. The Collection is located in Parliament House.

Commonwealth Indemnification of Exhibitions

In 1979 the Commonwealth introduced a scheme under which national and international touring art exhibitions could be approved for Commonwealth indemnity against loss or damage of the works involved. The scheme ensures that the Australian public has the opportunity to see major international and Australian touring art exhibitions which would be uneconomic without indemnity due to the prohibitive cost of insuring such major works. The scheme also covers Australian exhibitions travelling overseas, sponsored by the Australia Council, for which indemnity is not available from the host country and which without Commonwealth indemnity could not proceed.

Thirty exhibitions were indemnified by the Commonwealth between 1979 and 1984. They ranged from traditional Aboriginal artefacts through ancient Chinese and European archaeological finds to paintings, prints and drawings from a wide variety of countries, styles and schools.

Public Lending Right Scheme

The Public Lending Right Scheme, established by the Commonwealth Government in 1974, makes compensatory payments to Australian authors and their Australian publishers for the use of their books in public lending libraries. Eligible books must be created by Australian citizens and residents and meet certain pagination requirements.

The Scheme aims to resolve the apparent conflict between providing a free library system and ensuring that Australian writers, editors and other creators receive a fair payment for the use of their books.

The Scheme's annual payments amount to approximately $1,500,000. Payments to authors and publishers are based on annual sample surveys of bookstocks of public lending libraries throughout Australia.

Taxation Incentives for the Arts

The Taxation Incentives for the Arts Scheme came into operation on 1 January 1978 under section 78 of the *Income Tax Assessment Act 1936*. The Scheme encourages the donation of gifts in kind to public art galleries, museums and libraries by allowing donors a taxation deduction.

Donations to approved institutions under the Scheme are valued by two or more approved valuers and the average of the valuations may then be claimed by the donor as a deduction on his taxation return of income for the year in which the gift was made.

By 30 June 1984, 96 institutions throughout Australia had benefited under the Taxation Incentives for the Arts Scheme. The value of donations made to them under the Scheme was $15.7 million. Donations worth $1.8 million were made during the 1983-84 financial year.

Other Arts Organisations

Arts Council of Australia

The Arts Council of Australia is a community based incorporated body funded through the Community Arts Board of the Australia Council and State Government arts authorities. The Central Secretariat of the Council is in Sydney, with Divisions in all States and Territories.

The Arts Council's historical role of providing quality artistic experiences mainly in country areas by way of centrally-organised tours has changed over the last few years. Access to and participation in a much wider range of arts experiences is provided through traditional tours by State theatre, opera and ballet companies, local festivals and workshops, theatre-in-education teams and artists-in-residence. The voluntary committees, which number about 250 throughout Australia, receive support, help and training from the nine professionally-staffed head offices.

The Arts Council also administers grants on behalf of other bodies such as the Australia Council, State arts authorities and other government departments.

Australian Elizabethan Theatre Trust

The Australian Elizabethan Theatre Trust, established in the mid 1950s, was originally formed to present drama, opera, ballet and puppetry throughout Australia. Full autonomy has now been accorded to most of the performing companies established by the Trust. The Trust's major functions now are to administer the Elizabethan Trust Orchestras; to act as entrepreneur in the touring of theatre features from overseas and Australian sources; and to provide general services, including tax deductibility for donations, for theatre organisations. In 1982-83 the Trust presented national tours by the Peking Opera and Sadler Wells Royal Ballet.

The Trust receives annual grants from the Australia Council and State and local governments. Its revenue is supplemented by subscriptions, donations and its own activities.

Ballet

The Australian Ballet Foundation gave its first performance on 2 November 1962. The Company is now Australia's major classical ballet company, providing a balanced repertoire of full length classical ballet and new works. Based in Melbourne, the Company of 55 dancers, regularly tours to most State capital cities and has made several overseas tours.

Festivals

The number of festivals devoted solely or partly to the arts now totals about 400 a year. The two biggest are Adelaide's biennial and Perth's annual festivals, both of which last several weeks and present overseas artists as well as leading Australian companies. Victoria's large popular festival, 'Moomba' has a substantial arts program.

Many country centres now have arts festivals which attract performers and artists from a wide area. Seminars, arts workshops and community participation programs are increasingly popular.

Australian Opera

The Australian Opera is the largest performing arts organisation in Australia employing over 200 permanent staff including 40 principal singers and a chorus of 50. In addition, it employs over 500 casuals each year, including a number of celebrated international singers. The projected budget for the Opera in 1984, excluding the cost of orchestras, is over $14 million. This is derived from the following sources—55% box office, 34% government subsidy, 11% private contributions. The Opera, headquartered in Sydney, tours annually to Melbourne, Brisbane and Canberra. Free opera performances in the parks and television and radio activities are increasingly being utilised by the company to provide all Australians with access to opera.

Musica Viva

Musica Viva Australia, a non-profit society receiving financial support from the Music Board of the Australia Council and several State governments, seeks to increase the performance, knowledge and appreciation of chamber music through subscription concerts, festivals, workshops and education activities. Musica Viva presents concerts by distinguished overseas ensembles and by groups of leading Australian musicians and organises overseas commercial tours for Australia's leading ensembles. The Society manages approximately 800 concerts within Australia and overseas each year.

International Cultural Corporation of Australia Ltd

The International Cultural Corporation of Australia Limited was established in 1980 by the Commonwealth Government to arrange and manage international exhibitions of art and culture.

The principal activities of the Corporation are three-fold. It brings to the Australian people significant overseas collections of art and antiquities, and other exhibitions of artistic, cultural and historical interest for display in galleries and museums. Secondly, on behalf of the Australian Government, the Corporation sends overseas Australian art and other important examples of national cultural achievements. Finally the Corporation offers expertise and assistance to Commonwealth, State and overseas governments and to galleries and museums.

Film

Encouragement of the Australian film industry is a firm policy objective of the Commonwealth Government. The following funds were allocated to film-related organisations for 1984–85:

- Australian Film Commission—$19.7m (includes $5m for the special production funds)
- Australian Film and Television School—$6.782m
- Australian Children's Television Foundation—$0.5m
- National Film and Sound Archive—$2.6048m

Australian Film Commission

The Australian Film Commission, a statutory authority established in 1975, encourages the production, distribution and exhibition of Australian films and television programs and produces films which are in the national interest and films to serve the needs of Government.

The Commission provides financial assistance for script and project development through the Project Development Branch and the Creative Development Branch which also administers the Women's Film Fund. The Marketing Branch offers advice on marketing, provides loans for distribution and exhibition, represents Australian films at international festivals and maintains service offices in London and Los Angeles. The Commission's production division, Film Australia, produces an average of 76 films per year in over 26 languages.

Twenty-two features and five mini-series were made in 1983-84 at a combined total cost of approximately $58m. $85m was secured for feature films and mini-series production in 1984-85.

Australian films continue to attract interest internationally. In the past year *BMX Bandits*, *Careful He Might Hear You* and *Phar Lap* have been successful. Television mini-series have become popular with Australian and foreign audiences with high ratings for *All The Rivers Run*, also successful overseas, as well as *Return to Eden*, *Bodyline* and *Waterfront*.

The domestic market for Australian films has changed significantly in the past year with video recorders reaching an estimated 30% of Australian households. The decline of cinema attendances has resulted in more adventurous cinema programming by exhibitors to attract audiences back to the cinemas. The introduction of domestic satellites next year will also change television services. As a result, the Government and industry is assessing the impact of the changes for filmmakers, audiences and programmers. Australian film and television makers are continuing to make quality programs, and audiences can look forward to mini-series such as *The Last Bastion*, *The Cowra Breakout* and *The Dunera Boys* and feature films such as *The Coolangatta Gold*, *The Coca Cola Kid*, *Robbery Under Arms* and *For Love Alone*.

Taxation Incentives in Support of Film

The Scheme was established in its present form in October 1980 to encourage private rather than public investment in Australian films as prescribed in the *Income Tax Assessment Act 1936*. It allows taxation concessions for private investors in qualifying Australian films which have been issued with a certificate to that effect by the Commonwealth Minister for Home Affairs and Environment.

Qualifying Australian films are feature films and films of a like nature for television; documentaries; and mini-series of television drama. Further they must be produced principally for public exhibition in cinemas or on television and have a significant Australian content.

Australian Children's Television Foundation

The Australian Children's Television Foundation was incorporated in Victoria in March 1982. Its aim is to improve the quality and quantity of children's programs on Australian television. It has actively pursued this objective by investing in script development and program production and by undertaking related educative and informational activities. The Foundation receives assistance from Federal, State and Territory Governments (with the exception of Queensland). In 1984-85 $0.5m is to be provided by the Commonwealth with a matching contribution sought from the other participating governments.

The first production investment by the Foundation was in the telemovie *Fire in the Stone*, produced by the South Australian Film Corporation.

The Foundation has developed its own initiatives for children's programs most notably *Winners*, an anthology series of 8 stories for young adolescents. The series will be distributed world-wide. Programs being developed by the Foundation in conjunction with other organisations include a series aimed to introduce young children to art through action, comedy and fantasy.

Film Censorship

The Commonwealth's censorship powers derive from Section 51(1) of the Constitution, which enables the Commonwealth to regulate trade and commerce under the Customs Act. Section 50(1) of the latter Act provides that the Governor-General may, by regulation, prohibit the importation of goods into Australia. The Customs (Cinematograph Films) Regulations, which establish the Film Censorship Board and define its legislative role and functions, flow from that Section.

The Board is a full-time statutory body located in Sydney. Regional censorship officers, with limited powers and functions, are located in Canberra, Melbourne, Brisbane, Adelaide and Perth. The Board is administered by the Attorney-General's Department.

Under the Customs (Cinematograph Films) Regulations, the Board examines imported films and videotapes to determine whether to register or to refuse to register them for public exhibition. It also examines film advertising. The Regulations direct the Board not to pass films or advertising matter which in its opinion are

- blasphemous, indecent or obscene
- likely to be injurious to morality, or to encourage or incite to crime
- undesirable in the public interest.

The Board classifies imported television programs by virtue of a ministerial arrangement with the Australian Broadcasting Tribunal, as well as videotapes for sale/hire under the A.C.T. Classification of Publications Ordinance (since 1 February 1984) and the Victorian Films (amendment) Act 1983 (since 2 May 1984).

The Board's State functions in relation to cinema films, including classification, are performed by virtue of formal agreements with the various States. Decisions on matters arising under the Regulations and on classification under State/Territory legislation may be appealed to the Films Board of Review.

Decision on all the above matters are determined by a majority vote.

Thirty-five mm feature films. In 1983, 745 feature films (including 18 Australian films) were processed. Sixteen feature films were refused registration and deletions made in 13. There were nine appeals, of which five were upheld and four dismissed. Of the 745 features, 60 were classified For General Exhibition ('G'), 153 Not Recommended for Children ('NRC'), 253 For Mature Audiences ('M') and 146 For Restricted Exhibition ('R'). Twenty-four were registered subject to special conditions. Permissions to import for use at film festivals were granted to 93.

The principal suppliers were United States of America (402 films), Hong Kong (160 films), France (61 films), Italy (47 films), West Germany (31 films) and USSR (27 films).

While the 'M', 'NRC' and 'G' classifications are advisory, persons who have attained the age of two years and who have not attained the age of 18 years are excluded by law from seeing 'R' rated films.

Sixteen mm feature films. Excluding those imported for television use, 155 feature films (including seven Australian films) were processed. These included 53 for which permissions to import for use at film festivals were granted. Seven were refused registration.

Television Films. In 1983, 11,749 items for use on television were processed, consisting of 3,529 sixteen mm films and 8,220 videotapes. The principal suppliers were the United States (6,054 items) and the United Kingdom (2,546 items). Of the total, deletions were made in 80 items and 29 were classified 'Not Suitable for Television'.

Videotapes. The increase in the number of videotapes noted in the two immediately preceding years continued in 1983. Those processed (other than those for television) comprised 100 cinema titles and 8,793 non-cinema titles.

Eight mm films. 280 films were processed during 1983.

Advertising matter. 4,055 items intended for use in the promotion of theatrical motion pictures were processed.

Professional Training

Australian Film and Television School

The Australian Film and Television School was established in 1973 as a Commonwealth statutory authority.

It is responsible for advanced film, television, radio, and audio-visual communications training throughout Australia. The School provides full-time, open and graduate courses.

The School undertakes, co-ordinates and disseminates research in connection with the production of programs and assesses training needs and employment opportunities in the industry it serves. It also maintains an extensive library collection of film, television, radio and other audio-visual reference topics.

A new building for the School is currently being constructed at Macquarie University, Sydney.

National Institute of Dramatic Art

The National Institute of Dramatic Art is Australia's national training school for young people who wish to enter the profession of theatre, film and television as actors, directors, designers or stage managers. The Institute's courses are designed to meet the needs of the entertainment industry by assisting students to develop craft skills, cultural background and personal discipline required for successful careers in their chosen field.

The Institute's student body numbers approximately 140 and it has a staff of 30 full and part-time teachers. Each year some 60 new students are enrolled from over 1500 applicants from throughout Australia. In 1985, after 25 years of operating out of tin sheds and wooden huts, the Institute will move into a new home especially designed for its purpose. The building, located on the campus of the University of New South Wales is being funded by the Commonwealth Government, with additional funds coming from private sponsorship for the internal fixtures and equipment.

National Collections

Australian Archives

The need for a Commonwealth archival agency was recognised in 1943 when the Curtin Government appointed both the Commonwealth National Library and the Australian War Memorial as provisional archival authorities. In 1952, the Commonwealth National Library became the sole Commonwealth archival authority, and in 1961 the Archives Division of the Library was reconstituted as a separate agency known as the Commonwealth Archives Office. At this time, the Archives Office became responsible for the evaluation, disposal and preservation of Commonwealth records, for taking into custody all records no longer required for immediate reference and for regulating access to those records by research workers and other members of the public. In 1974, the Commonwealth Archives Office was renamed the Australian Archives and a Director-General was appointed in 1975. By 1974 Regional Offices had been established in all State capitals and in Darwin and Townsville. The Central Office of the Australian Archives is located in Canberra.

In October 1983, the *Archives Act* was passed and came into effect on 6 June 1984. The Act provides the Archives with a statutory basis for its operations and institutes arrangements for the management and proper disposition of the vast body of records created by all Commonwealth agencies, past and present.

By providing a legislatively based system of public access covering Commonwealth records more than 30 years old, the *Archives Act* complements the provisions of the *Freedom of Information Act*. Together these two Acts provide a comprehensive system of public access covering all classes of Commonwealth records.

At 30 June 1984, Australian Archives' holdings throughout Australia totalled 367,521 shelf metres of records, including 149,656 metres of permanent value material. During 1983–84, 2,018 official reference inquiries were received and 303,137 items were lent or returned by departments. Some 3,446 public reference inquiries were also received and 172,443 items were consulted in repositories and search rooms.

Australian National Gallery

The Australian National Gallery in Canberra was established in 1975. The building officially opened in 1982. The Gallery's aim is to acquire, conserve, research and make accessible a national collection of works of art for the benefit and enjoyment of all people. The gallery is responsible for the national collection of Australian art and representative works of international art. To fulfil this aim the Gallery's acquisitions follow two key principles: Works of art are selected on the highest aesthetic standards; and, in its international collections, the Gallery always seeks to complement existing public collections in Australia.

Australian Art: The entire upper floor of four galleries has a permanent display presenting the full history of Australian art. Spanning two hundred years, this unique display incorporates paintings and sculptures, decorative arts, illustrated books, prints, drawings, watercolours, photographs, mural decorations of monumental scale and Aboriginal art.

International Art: The Gallery began its collection of international art in 1972 and in a comparatively short period of time has acquired a range of masterpieces. They include Giambattista Tiepolo's *Marriage Allegory of the Cornaro Family*, Claude Monet's *Haystacks at Noon* and *Waterlilies*, Jean Batiste Houdon's *Bust of a Girl* and Joan Miro's *Landscape.*

Touring Exhibitions: The Great Impressionists Exhibition was undoubtedly the Gallery's most outstanding success for the year. One hundred masterpieces from the Courtauld Collection of Impressionist and Post-Impressionist paintings and drawings went on display at the gallery throughout June and July 1984. The Exhibition attracted more than 200,000 people.

The Proceeds from admission fees are used exclusively to purchase works of Australian Art.

'The long wait'. Visitors waiting outside the Australian National Gallery to see the exhibition of French Impressionists. The pedestrian overpass spans the roadway between the National Gallery and the High Court of Australia.

The Canberra Times

Australian War Memorial

The Australian War Memorial commemorates Australian servicemen and women who died as a result of wars or warlike operations, from the Sudan (1885) to Vietnam. The Memorial building opened in Canberra in 1941.

The commemorative area includes the glass-mosaic Hall of Memory, Cloisters containing bronze panels of the Roll of Honour bearing 102,000 names, and the Courtyard in which there is a Pool of Reflection and a water cascade symbolising eternal life. The names of the 30 main theatres of war in which Australian forces served are inscribed around the Courtyard. The national Anzac Day and Remembrance Day services attended by the Governor-General are held at the Stone of Remembrance in front of the building. Other wreath-laying ceremonies are also conducted at the Commemoration Stone in the Courtyard.

As well as the nation's Memorial, it is also a significant museum and art gallery, containing some 40,000 war relics ranging from aircraft to commemorative badges, and 12,000 works of art by leading Australian artists, including Nolan, Dobell, Streeton and Lambert. The Memorial's 33 Victoria Crosses are the largest such single collection in the world.

A program of major renovations to the Memorial galleries has begun as part of the Bicentennial program. Photographs of the *Gallipoli Gallery* opened in 1984, are a feature of this issue. The War Memorial and its surrounds were entered in the Register of the National Estate in 1981.

The Memorial is a major tourist attraction, receiving 1.3 million visitors each year.

Museum of Australia

The Museum of Australia was established under the *Museum of Australia Act 1980*. An 88 hectare site at Yarramundi on the shores of Lake Burley Griffin in Canberra has been reserved for the Museum.

The Museum will be Australia's first national museum of history and will have three major themes: the history of Aboriginal Australia, the history of Australia since first European Settlement in 1788 and the interaction between people and the environment.

National Film and Sound Archive

On 3 October 1984 the Prime Minister opened the National Film and Sound Archive in the former Institute of Anatomy Building in Canberra. The Archive is to preserve moving images and recorded sound, as part of Australia's 20th Century cultural heritage. Based on the existing film and sound archives located in the National Library of Australia, but with increased staff, funds and equipment, the Archive is to further develop film and sound archive functions, allowing more nitrate film to be preserved and more sophisticated conservation techniques to be undertaken.

The Archive is an Office within the Department of Home Affairs and Environment. The Archive will also open offices in New South Wales and Victoria to increase access by the public and the film industry.

Film holdings at 30 June 1984 were:

Film titles	67,070
Video titles	3,226
Film stills	253,998
Lobby cards	13,172
Posters	31,000
Scripts	5,555

Sound recording holdings at 30 April 1984 were:

Discs	469,127
Tapes	16,216
Cylinders	5,200
Piano rolls	2,000

National Library of Australia

The National Library in Canberra is formally established under the *National Library Act 1960*. It was previously part of the Commonwealth Parliamentary Library. The National Library maintains and develops a national collection of library material in all subject fields and from all countries. It is also responsible for assembling a comprehensive collection of library material relating to Australia and the Australian people. In fulfilling its functions, the Library seeks to preserve books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, music scores and other material. Under the deposit requirement of the *Copyright Act 1968*, a copy of all printed material published in Australia is delivered to the National Library.

The Library has also been enriched by the acquisition of such notable collections as the Petherick collection of Australiana in 1911, the Cook manuscripts in 1923, the Mathews ornithological collection in 1940, the Rex Nan Kivell collection of Australian and Pacific interest in 1959 and the Ferguson collection of Australiana in 1970. Cornelius Wytfliet's map of 1597; *see* Chapter 1 of this Year Book, formed part of the Petherick collection. The Library regularly presents exhibitions of paintings, prints and other historical material selected from its various collections.

The National Library's collection of Australian and overseas material contains more than 4 million volumes, including microforms; 38,300 paintings, drawings and prints; 410,500 photographs; 5,700 shelf metres of manuscripts; 321,900 maps; 550,700 aerial photographs; 106,000 music scores; 19,300 films and video cassettes and 11,800 oral history tapes.

The Library publishes the national bibliographies of books, periodicals and maps. In its provision of central cataloguing services, the Library achieves cataloguing economies on a national scale. The Australian Bibliographic Network, a national on-line shared cataloguing and inquiry system, was launched by the Library in 1981. Bibliographic records available from the Library for Australian and overseas books are widely used by libraries throughout Australia.

Co-operative bibliographical activity includes recording in the national bibliographic database and, in a series of union catalogues, the holdings of major Australian libraries. These catalogues are described in the Guide to the National Union Catalogue of Australia, 5th ed., 1984.

Through its *Library Services for the Handicapped* section, the Library, in co-operation with a number of institutions and agencies, provides library services to people with disabilities.

Other Libraries

Patent Office Library. The library of the Australian Patent, Trademarks and Designs Office in Canberra contains approximately 12,000 books and a wide variety of periodicals and other literature relating to science, technology, industrial property (patents, trademarks and designs), law and practice. Patent specifications of inventions are received from the principal countries of the world and held in the Documentation Centre. Present holdings are over 15,000,000 with an estimated 600,000 patent specifications received annually. The Australian Patent Information Service works in co-operation with the Library. Its major function is to make Australian industry aware of the wealth of technological information held in the world collection of patent literature and assist them in accessing this information. Australian and some foreign specifications and related material are also available at sub-Offices in Brisbane, Sydney, Melbourne, Adelaide, Perth and Hobart. Information officers are located in the Sydney and Melbourne sub-Offices to assist the public to access patent literature.

Commonwealth Scientific and Industrial Research Organization (CSIRO). The Central Information, Library and Editorial Section (CILES) was formed at the end of 1973. Its objectives are to provide information, library, translation, editorial, publishing and archival services in all fields of science and technology other than clinical medicine.

The Central Information Service complements the information programs of the 40 or so CSIRO Divisions and, in addition, produces numbers of data bases such as *CSIRO Index* and directories such as *Scientific and Technical Research Centres in Australia*. It also provides computer-based search services and a question-and-answer service. The Central Library is the co-ordinating centre for the CSIRO Library Network of some 70 libraries and book-holding centres providing acquisitions, bibliographic, reference and document support for the entire system. The Central Library maintains a union catalogue of the holdings of all CSIRO libraries, and maintains the constantly updated *Scientific Serials in Australian Libraries* as well as extensive collections of scientific and technical publications. The Editorial and Publications Service produces publications on behalf of the Divisions and, with the Australian Academy of Science, is responsible for publishing the Australian Journals of Scientific Research. The activities of the Section are fully reported in the regularly issued *CILES' Report*.

The Australian War Memorial Documentary and Audio-visual Records Centre, Canberra. The Centre preserves the documentary and pictorial records of Australia's participation in armed conflicts. Printed material includes over 80,000 volumns (books and bound periodicals); thousands of unbound periodicals; leaflets; souvenir and microfilm items; a large collection of military maps; newscuttings and newspapers; sound recordings; war posters; postage stamps; and currency. Official records and personal papers occupy almost 2,000 metres of shelving. Official war photographs covering the 1914–18, 1939–45, Korean and Vietnam wars number over 670,000, and there are about 1.5 million metres of cinefilm. Facilities exist for reference and research.

The Commonwealth Parliamentary Library. The Library provides comprehensive information and research services to the Commonwealth Parliament through the Legislative Research Service and the Library, Reference and Information Service. The Research Service comprises groups staffed by subject specialists who prepare analyses and interpretations of specific issues with which the

Parliament is or may be concerned. The Library, Reference and Information Service answers questions and provides information from printed and other published sources. The Library collection is concentrated on topical material, supported by a wide collection of standard references; it totals some 150,000 volumes, including 9,000 serial titles. The Library publishes the Commonwealth Parliamentary Handbook, which is a standard reference work, occasional annotated reading lists, general research papers from the Legislative Research Service, digests of bills and, in alternate fortnights the Index to Current Information and Select List of Acquisitions. Extensive use is made of computer and on-line services, particularly in such areas as economic and electoral statistics and in the provision of information by librarians.

Other Commonwealth Government libraries. Current and retrospective information is available in Australia's special libraries. For a detailed listing of the libraries see the *Directory of Special Libraries in Australia.*

Library services in the Territories. The Northern Territory Library Service operates three public libraries in Darwin, and one each in Alice Springs, Katherine and Tennant Creek, and in co-operation with the Department of Education operates a community library in Nhulunbuy and Bamyili. At 15 September 1982, books stocks totalled 220,000 volumes, and 2,147 films were available in the film library. A country borrower programme is operated to service isolated areas.

The Department of Territories and Local Government conducts the Canberra Public Library Service for residents of the Australian Capital Territory.

State libraries

Most municipal councils in the States have libraries funded largely by State governments. A detailed description of State libraries is given in each State Year Book.

Children's libraries and school libraries

Children's libraries exist in all States, usually as branches or extensions of State or municipal libraries.

University and college libraries

The Commonwealth Government has since 1957 supported the development of university and college of advanced education libraries.

HERITAGE ACTIVITIES

The Commonwealth Government is an active partner with the States and Territories in protecting Australia's heritage, or national estate.

Under the *Australian Heritage Commission Act 1975,* the national estate is defined as "those places, being components of the natural environment of Australia or the cultural environment of Australia that have aesthetic, historic, scientific or social significance or other special value for future generations as well as for the present community".

Therefore Australia's heritage includes far more than historical buildings. It covers the natural and cultural environments in all their aspects. Natural environments range from national parks, nature reserves, habitats of endangered species, islands, rivers, wetlands, deserts and wilderness areas to outstanding geological features and landscapes. The cultural environment is equally diverse. Aboriginal sites of all types are included, from cave paintings to fish-traps and carved trees. Historic cultural places include old residential and commercial buildings, mining and industrial structures and their equipment, transport structures, shipwrecks, parks and gardens.

National Estate Grants Program

The Program is designed to help the States and Territories, and organisations within them, to conserve our national estate. It is a Commonwealth Constitution 'Section 96' scheme operated under the provisions of the *Urban and Regional Development (Financial Assistance) Act 1974* and of agreements between the Commonwealth and each State and the Northern Territory.

The program is co-ordinated by the Department of Home Affairs and Environment in liaison with State and Territory authorities and the Australian Heritage Commission.

Under current arrangements, State and Territory governments have the primary responsibility for developing and administering their respective programs. Annual expenditure so far has been:

	$m		$m
1973-74	0.288	1979-80	2.0
1974-75	7.04	1980-81	2.2
1975-76	3.9	1981-82	2.2
1976-77	1.254	1982-83	2.2
1977-78	2.6	1983-84	2.77
1978-79	2.6	1984-85	2.908

Project work is carried out by State and Territory government departments and authorities, local government bodies, academic institutions, National Trusts, professional and community organistaions as well as by individual consultant firms working for them.

Australian Heritage Commission

The Australian Heritage Commission's responsibilities are to advise the Minister for Home Affairs and Environment on all matters related to the National Estate; to prepare and maintain a Register of National Estate places; to develop policies and programs for education, research, professional training and public interest and understanding in fields related to the National Estate; and to administer any gifts and bequests made to the Commission.

The Commission, established under the *Australian Heritage Commission Act 1975*, consists of a part-time independent Chairman and up to six part-time Commissioners, with various skills and interests in the natural and cultural environment.

To date approximately 7,300 places have been entered in the Register of the National Estate. They relate to the natural environment and to Aboriginal or European culture.

World Heritage List

The World Heritage List contains areas which are of 'outstanding universal value', the disappearance or destruction of which would constitute a 'harmful impoverishment of the heritage of all nations of the world'. There are five Australian entries on the World Heritage List: the Great Barrier Reef (Queensland), Kakadu National Park (Northern Territory), the Willandra Lakes Region (New South Wales), the Lord Howe Island Group, and the Western Tasmanian Wilderness National Parks.

Aboriginal Heritage and Culture

On 25 June 1984, the *Aboriginal and Torres Strait Islander Heritage (Interim Protection) Act 1984* received Royal Assent. The Act provides protection for significant Aboriginal areas and objects under threat of injury or desecration. Applications are examined initially to see whether protection under State or Territory legislation is effective, and if this is the case a declaration will not be made. It is essentially emergency protection pending the enactment of more comprehensive Aboriginal land rights and heritage protection legislation planned for introduction in 1985. The Act will lapse in June 1986.

Aboriginal Land Rights (Northern Territory) Act

On Australia Day 1977, the *Aboriginal Land Rights (Northern Territory) Act 1976* was proclaimed. The Act gave legal recognition to Aboriginal land rights in the Northern Territory and was based on the recommendations contained in the second report of the Aboriginal Land Rights Commission (Woodward Report 1974).

In summary, the Act provides for:

- the creation of Aboriginal Land Trusts to hold title to Aboriginal land;
- the grant to Land Trusts of inalienable freehold title to Northern Territory Aboriginal reserves and some other land (about 19 per cent of the Northern Territory);
- Aboriginal Land Councils to act as agents for traditional Aboriginal owners in respect of land matters (currently the Central Land Council, Northern Land Council and Tiwi Land Council);
- an Aboriginal Land Commissioner to investigate and report on Aboriginal claims to unalienated Crown land and some other land made on the basis of traditional ownership. To date some 32 per cent of the Northern Territory has been successfully claimed while another 13 per cent under claim is yet to be decided;
- traditional Aboriginal owners to control mining and other activity on their land;
- negotiation by the Land Councils of terms and conditions of any mining or exploration to be carried out, and the appointment of an independent arbitrator if agreement cannot be reached in these negotiations;
- royalty equivalents from mining operations on Aboriginal land to be received by Aboriginals with a proportion (30 per cent) being paid to communities within the area affected, a proportion going to meet the general administration costs of the Land Councils (40 per cent) and the balance being available for the benefit of Aboriginals in the Territory (30 per cent).

Uluru (Ayers Rock—Mount Olga) National Park (NT)

On 11 November 1983, the Prime Minister announced that the Government had agreed to transfer title to Uluru (Ayers Rock—Mount Olga) National Park to the traditional owners. Under the terms of the transfer the traditional owners agreed to lease back the land to the Director of the Australian National Parks and Wildlife Service who will maintain it as a National Park. The terms and conditions of the lease-back are the subject of negotiation between the Commonwealth, the Northern Territory Government and the traditional owners. Detailed arrangements for the transfer of title, including the introduction of the necessary legislative amendments into Parliament, will be settled following agreement on the lease-back conditions.

(For further information *See* under National Parks, page 624)

National Trusts

The National Trust bodies were set up to further the conservation of lands, buildings, works and articles which are of heritage importance because of educational, aesthetic, historic, architectural, artistic, scientific, cultural or other special interest.

The first Trust, the National Trust of Australia (New South Wales), was formed in 1945. Since then, Trusts have been formed in each State, the Northern Territory and the Australian Capital Territory.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout Australia is approximately 80,000.

About 300 properties are owned or controlled by the Trusts. These properties include houses, nature reserves, gardens, two paddle steamers and an iron barque, an historic hamlet, and buildings which were formerly a telegraph station, a stock exchange, a powder magazine, a market, an inn, a police station, a court house, a gaol and a joss house.

The various Trusts have established heritage registers which collectively list more than 18,000 places throughout Australia including buildings, urban areas, landscapes and industrial sites.

Historic Shipwrecks

Around Australia's coastline lie many old shipwrecks of historic value—the English *Trial* or *Tryal* sunk in 1622; the Dutch *Batavia* wrecked in 1629; *HMS Sirius*, the flagship of the First Fleet of settlement lost in 1790; the Bounty mutineer chaser *HMS Pandora* wrecked in 1791; sailing ships, whalers, cutters and steamships of all times and nationalities.

Shipwrecks in their hundreds provide direct evidence of the exploration of Australia, of the first industries such as sealing, whaling and trading and of the perils facing convicts and migrants who voyaged to Australia. These survivals of international maritime heritage are worthy of protection, conservation and proper study. Their important educational, recreational and tourist applications are recognised and protected by the Commonwealth *Historic Shipwrecks Act 1976* which applies to the coastal waters off all Australian States and Territories. Under this Act, any person finding the remains or relics of a previously unreported ship must notify its location to the Commonwealth Minister for Home Affairs and Environment. If the wreck is declared 'historic', the Minister is empowered to pay the finder a reward not exceeding the prescribed amount of $50,000.

Australian Anniversaries

The Australian Bicentenary—1988

The Commonwealth Government has committed $166 million (July 1982 prices) for the development of projects and events to celebrate and commemorate the Australian Bicentennial Year in 1988.

In April 1979 the Commonwealth established the Australian Bicentennial Authority (ABA) to develop, promote and implement a National Program of Projects and Events. The *Australian Bicentennial Authority Act 1980* established the ABA as a company, limited by guarantee. The ABA is governed by a Board of Directors appointed by the Commonwealth, the Prime Minister and the Leader of the Opposition, the States and the Northern Territory.

The ABA's national program of projects and events was announced by the Minister for Home Affairs and Environment on 23 July 1984. This program sets the framework for national Bicentennial projects and events and comprises activities in five general areas:

- Commemorative projects other than the Commonwealth/State commemorative program
- Education and information activities
- Community based activities
- Arts and entertainment activities
- Major events

Special consideration will be given to developing programs for disadvantaged people and special interest groups—Aboriginal programs, women's projects, a youth festival, multicultural events and projects involving the aged and the disabled. In announcing the national program, the Minister confirmed that 'Living Together' is the official theme for the Bicentenary.

Of the $166 million commitment for the Bicentenary, $48 million was set aside for the Commonwealth/State Bicentennial Commemorative Program. The States and Territories have agreed to at least match their share of the Commonwealth funding under this program to provide lasting memorials for the Bicentenary, to be in place by the end of 1988. New South Wales, Queensland and Victoria have already nominated major projects under this program and the other States and Territories are expected to follow suit in the near future. The only project approved and announced by the Commonwealth to date is the Newcastle Foreshore Beautification Scheme.

Commonwealth Departments and Statutory Authorities are also involved in developing their own Bicentennial projects. Although these projects are in the early stages of development, a number of exciting proposals are expected, including the development of documentaries and dramas depicting our development, major art exhibitions and so on.

The Commonwealth has registered with the Bureau of International Expositions an exposition to be held in the year of the Bicentenary, 1988, in Brisbane. Expo 88 is primarily a Queensland Government initiative. It will have the theme, 'Leisure in the Age of Technology'.

Australia Day

Australia's national day is January 26th, although traditionally it has been celebrated by a holiday on the first Monday after that date. Thus for many Australians it is just the long weekend at the end of January, and for many there is little patriotism surrounding the occasion, or little knowledge of the event the holiday originally represented—the landing of the First Fleet in Port Jackson in 1788.

However the lack of enthusiasm surrounding Australia Day is changing. In 1979 the Commonwealth Government established the National Australia Day Committee to foster the observance of Australia Day. To facilitate the national co-ordination of Australia Day celebrations, the Committee has recently been upgraded to a Council and will include members nominated by State Premiers and the Chief Minister of the Northern Territory.

Other Australian Anniversaries

Victoria's 150th anniversary commenced in November 1984 and the Commonwealth provided a gift of $5 million to develop anniversary projects chosen by the Victorian Government. These projects include the Westgate Park Project (the construction of the first major inner urban Melbourne Park for 40 years) and the development of a Gallery of Sport.

South Australia commences 150th Jubilee celebrations in 1986 and will use its Commonwealth gift of $2 million to develop a Maritime Museum and Park at Port Adelaide; to purchase the historic schooner "Falie" and for other projects.

The City of Wollongong celebrated its 150th birthday in 1984. The Wollongong Festival Committee received a gift of $50,000 from the Commonwealth to assist it with celebration activities.

ENVIRONMENT AND CONSERVATION

In Commonwealth legislation, environment is defined as including "all aspects of the surroundings of man, whether affecting him as an individual or in his social groupings". Thus the environmental responsibilities of the Government relate to a broad range of activities including control of air and water pollution, soil conservation, wildlife protection, establishment of national parks, recycling and energy conservation. These responsibilities are shared among many agencies of government although a special focus is provided by the Ministry of Home Affairs and Environment.

The Commonwealth is responsible for the environment of the Territories and in Commonwealth places, for the environmental impacts of its agencies operating in the States and for contributing to international environmental activities, including the application of international conventions to which Australia is a signatory. The Commonwealth also plays a major role in environmental research and information exchange and generally endeavours to co-ordinate environment protection and conservation activities to achieve maximum benefit for the nation.

National Activities

National collaboration on environmental matters is facilitated through Commonwealth, State Ministerial Councils and other advisory bodies, and through a variety of nationally co-ordinated activities and programs.

Australian Environment Council

The Australian Environment Council was established in 1972 by agreement between the Prime Minister and the State Premiers. Membership consists of Ministers responsible for environmental matters in each State, internal Territory and the Commonwealth Government. New Zealand and Papua New Guinea have observer status on the Council.

The Council provides a forum for consultation, co-operation and liaison on matters concerning environmental management and pollution control. These matters have included the control of emissions and noise from motor vehicles, the use and disposal of hazardous chemicals, noise control, water quality, air pollution solid-waste management, the economics of pollution abatement policies and environmental impact assessment.

Council of Nature Conservation Ministers

The Council of Nature Conservation Ministers was established in 1974 by agreement between the Prime Minister and State Premiers. It comprises Ministers with nature conservation responsibilities in each State, internal Territory and the Commonwealth Government as well as the Commonwealth Minister responsible for the Commonwealth Scientific and Industrial Research Organisation. New Zealand and Papua New Guinea have observer status on the Council.

The Council provides a forum for developing co-ordinated policies for nature conservation, especially the reservation and management of adequate areas of land for this purpose, and for the conservation and management of Australia's wildlife. Specific matters considered by the Council have included trafficking in native animals and plants, commercial exploitation of wildlife, culling of population of native species, protection of endangered and threatened plants and animals, and the control of diseases affecting or likely to affect natural ecosystems in Australia.

Australian Ionising Radiation Advisory Council

The Australian Ionising Radiation Advisory Council advises and makes recommendations to the Government on the various actual and potential population and environment. The Council has been a source of independent expert advice on matters such as fallout over Australia from nuclear weapons testing, health effects of exposure to ionising radiation, radioactive waste management, visits of nuclear powered warships, and licensing and regulation of nuclear activities.

National Conservation Strategy for Australia

Following the international launching of the World Conservation Strategy in 1980, the Commonwealth Government, all States and the Northern Territory agreed to co-operate in developing a National Conservation Strategy for Australia which would aim to achieve "sustainable development"—that is, harmony between development and conservation of Australia's living resources and supporting ecosystems. After wide consultation with the States, non-government conservation groups, industry and the community, consensus was obtained on a Strategy at a National Conference held in June 1983.

The Commonwealth Government endorsed the National Conservation Strategy for Australia in June 1984 and has established an Interim Consultative Committee to advise on its implementation.

National Tree Program

The National Tree Program, which commenced in mid-1982, aims to promote action by individuals, governments and the community generally, to conserve, regenerate, plant and maintain trees throughout the nation and to develop an awareness of the value of trees through education and information activities. Tree loss has reached critical proportions in many areas of Australia and it is often associated with problems of land degradation.

Australian Biological Resources Study

The Australian Biological Resources Study (ABRS) was established in 1973 to stimulate taxonomic and ecological studies of Australian flora and fauna through provision of grants for research and publication. ABRS responsibilities include provision of advice on national taxonomic collections and establishment and maintenance of a national taxonomic data bank. Much of the work of the study is done in State Museums, Botanic Gardens and Herbaria which were established during the last century. CSIRO also carries out important research relating to flora and fauna.

Current major projects of ABRS include preparation of a 50 volume *Flora of Australia*, a 10 volume *Fauna of Australia*, compilation of the *Zoological Catalogue of Australia* and establishment of data base exchange systems for Museums and Herbaria.

Environmental Impact Assessment

The Commonwealth and most States have formal procedures for assessing the environmental implications of development proposals which could have significant environmental effects and for taking these effects into account in the actions and decisions of the respective governments. The procedures generally include provisions for the preparation of environmental impact statements by proponents, public comment on the statements and assessments by government.

Environment Studies

The Department of Home Affairs and Environment undertakes studies in relation to economic of pollution control, conservation economics, cost-benefit analysis and environment-energy interactions. A major report on the state of the Australian environment is currently being prepared.

Control of Environmental Contaminants

Various programs operate to control environmental contaminants. Final plans are being made for a national chemicals notification and assessment scheme which has been developed by the Australian Environment Council. The *Environmental Protection (Sea Dumping) Act* controls dumping of wastes in marine waters. The capacity for monitoring air pollution is being strengthened through a national monitoring program being implemented in conjunction with the States. Other activities cover codes of practice for radioactive materials, waste management, monitoring of the marine environment, oil spill control and air pollution control strategies.

Statutory Authorities

Australian National Parks and Wildlife Service (ANPWS). ANPWS is the principal adviser to the Commonwealth Government on national nature conservation and wildlife policies. It works in close co-operation with other Commonwealth Authorities and relevant State and Territory Agencies. Responsibilities include nature conservation, national park planning and management, creation of public awareness and involvement in conservation, preservation of the Australian national heritage and co-operation with Aboriginals in protecting wildlife and natural features.

Under the *Wildlife Protection (Regulation of Exports and Imports) Act 1982,* ANPWS has administrative responsibility with respect to the export of flora and fauna.

Great Barrier Reef Marine Park Authority. The *Great Barrier Reef Marine Park Act 1975* provides for the establishment, control, care and development of a marine park in the region and for the establishment of the Great Barrier Reef Marine Park Authority to carry out these functions. The Marine Park is being progressively expanded throught the successive proclamation of areas of the reef. It is the policy of both the Commonwealth and Queensland Governments to prohibit any drilling on the reef, or drilling or mining which would damage the reef.

Eight Sections of the Great Barrier Reef Marine Park have been declared: the Capricornia, Cairns, Cormorant Pass, Far Northern, Central, Southern, Townsville and Inshore Southern Sections. The area of the Marine Park is approximately 345,000 square kilometres or about 99% of the Great Barrier Reef Region.

Supervising Scientist for the Alligator Rivers Region. Special arrangements have been made for minimising the environmental impact of uranium developments in the Northern Territory. The Commonwealth has appointed a Supervising Scientist who has overall responsibility to protect and restore the environment of the Alligator Rivers Region in areas affected by uranium mining.

NATIONAL PARKS, BOTANIC GARDENS AND NATURE RESERVES

National Parks

Namadgi National Park—Australian Capital Territory

In June 1984 the former Gudgenby Nature Reserve (62,000 ha.) and part of the Cotter River Catchment (32,000 ha.) were combined to form a new National Park. It is known as Namadgi and covers 40 per cent of the Australian Capital Territory. Namadgi shares a common boundary with the magnificent Kosciusko National Park (520,000 ha.) and other Reserves in neighbouring New South Wales.

The topography and landscapes of Namadgi National Park and, consequently, the plant and animal communities are extremely varied and include the only parts of the A.C.T. with a sub-alpine climate. Habitat ranges from grassland of the valley floors, through woodland and mountain forest to sphagnum bogs, heath swamps and alpine woodland.

Several high peaks rise to over 1,800 metres above sea level and include Mount Bimberi, the highest peak in the A.C.T.

Kakadu National Park—Northern Territory

The Park covers an area of 12,711 square kilometres in the East Alligator River Region approximately 200 kilometres east of Darwin. The management plan for the Kakadu National Park came into operation on 2 April 1981. Since that time management and development of the Park has proceeded in accordance with the prescription of the plan. Recently, a number of significant developments have taken place. Facilities for the protection and interpretation of the renowned art site at Ubirr (Obiri) in the north of the Park have been largely completed. These include a boardwalk above an archaeological site, interpretative signs and natural stone walkways. All have been installed in close consultation with traditional Aboriginal owners. New camp grounds have been provided with sealed road access near the East Alligator River and at Jim Jim Billabong. High priority monitoring of saltwater crocodile and exotic water buffalo population has been introduced. A fire control plan, designed to give maximum protection and benefit, was introduced in 1983 after consultation with traditional owners of the Park. An estimated 59,000 persons visited the Park in 1983-84.

Uluru National Park—Northern Territory

The Park covers an area of 132,550 hectares and is located west of Alice Springs, adjacent to the Petermann Aboriginal Reserve. It includes Ayers Rock and the Olgas. Capital expenditure in 1982-83 was approximately $0.6m. The $150m Yulara Tourist Resort, situated just outside the National Park boundary, will be fully operational by the end of 1984. An estimate of the number of visitors to the Park in 1983-84 was 110,000. (For further information *see* Heritage Activities, page 618).

Botanic Gardens

National Botanic Gardens

Australian Capital Territory: The Australian National Botanic Gardens occupy a 44 hectare site on the lower slopes of Black Mountain in Canberra. It was officially opened in 1970 and comprises the largest living collection of Australian native plants with over 6,000 species in cultivation. The associated herbarium houses over 143,000 specimens. An annexe of approximately 78 hectares was established at Jervis Bay in 1951 to cultivate frost tender plants under more favourable conditions than those prevailing in Canberra, and to establish a collection of native plants representative of the flora of the Jervis Bay region.

An Education Centre with classrooms and the Banksia Centre with its special garden and activity programs for disabled people are part of the community services offered by the Gardens.

Horticultural research is an important aspect of the Gardens' activities and special emphasis is placed on the study and cultivation of endangered species. The Australian Cultivar Registration Authority is also based at the Gardens.

A 40.5 hectare extension to the Gardens adjacent to the present site will be developed over the next 10 years to enable a greater number of species to be cultivated.

Darwin Botanic Gardens

Northern Territory: The Darwin Botanic Gardens occupy 30 hectares and feature 12 hectares of tropical plants of both native and overseas origin. Two hectares are used for an amphitheatre and contain a number of native and exotic plants. The Gardens are controlled by the Darwin City Council who have recently commenced a $600,000 redevelopment program which will include a rain forest, a typical top-end lagoon and a coastal salt-water development.

Nature Reserves (A.C.T.)

Tidbinbilla Nature Reserve

The Tidbinbilla Nature Reserve (5,515 ha.) is located 43 km south-west of Canberra. The Reserve includes much of the Tidbinbilla Valley which ranges from 762 metres above sea level to 1,325 metres at Tidbinbilla Peak, the highest peak of the Tidbinbilla Range which forms the western boundary of the Reserve. As a consequence of the valley topography many habitats are represented and plant and animal wildlife is diverse. A system of wildlife enclosures and waterfowl ponds, 56 kilometres of nature trails and a comprehensive information service is provided for approximately 180,000 visitors per annum.

Black Mountain Reserve

The Black Mountain Reserve (521 ha.) adjacent to Lake Burley Griffin, is a significant focal point in the Canberra landscape and an essential component of the 'mountain and lake' concept of the Canberra scene. Black Mountain Reserve is unique in its setting within the inner boundary of a National Capital. In addition to broad scale scenic attributes, the Reserve has a varied complex of flora and fauna and is used extensively for recreation and nature study.

Jervis Bay Nature Reserve

The Jervis Bay Nature Reserve occupies two thirds (4,470 ha.) of the Commonwealth Territory of Jervis Bay which lies on the south-east coast of Australia. The Reserve is characterised by a substantially natural landscape and outstanding coastal scenery, high cliffs, ocean and bay beaches, sand dunes, woodland, forest and heath. A small island and part of the unspoilt marine environment of Jervis Bay and its foreshores are managed in sympathy with the Nature Reserve. Camping facilities are provided and are designed to complement the natural values of the area which attracts in the order of 400,000 visitors annually.

Management aims for all nature reserves in the A.C.T. and Territory of Jervis Bay are to:
- maintain natural ecosystems and landscapes and protect sites of prehistoric and historic significance;
- provide opportunities for recreational, scientific and educational use of these resources consistent with their protection.

SPORT AND RECREATION

The Department of Sport, Recreation and Tourism has a general responsibility in the national sphere for recreation, fitness and advice on sports policy.

All State governments have also established agencies with special responsibilities for recreation and sport. Increasing numbers of local government authorities are employing recreation workers who are responsible for planning the use of recreation facilities, and for devising recreation programs.

Development and Assistance

In 1983-84 the Government introduced the Program of Assistance for National Recreation Organisations. This Program was allocated $144,500 and paralleled the Sports Development Program closely in the areas assisted.

The Sports Development Program administered by the Department of Sport, Recreation and Tourism is the Commonwealth's major contribution to national sporting organisations. In 1983-84 the Government provided $5.65m under this program. Grants are allocated to national sporting organisations for a range of purposes including the employment of administrative and coaching personnel, assistance for national coaching projects, travel expenses for Australian teams competing overseas, assistance towards conducting international sporting events in Australia and development projects. Particular programmes of interest are:

National Coaching Accreditation Scheme

The National Coaching Accreditation Scheme (NCAS) has been developed as a means of upgrading and developing coaching standards at all levels of participation. It is a coach education program which increases the proficiency of coaches through the provision of courses at three levels. Each course contains material specific to the individual requirements of a particular sport.

The development and administration of the Scheme is the responsibility of the Australian Coaching Council (ACC) which was established in 1979 with the support of the (now) Sport and Recreation Ministers' Council. The ACC is a co-operative venture between Commonwealth, State and Territory Governments and sport.

In 1983-84 the Commonwealth Government provided $65,000 from the Sports Development Program to assist with the development of the Scheme, including the employment of a full-time development officer.

The Council meets four times a year and is assisted by a Technical Committee, which examines applications from national sporting organisations for accreditation of national coaching schemes. Sixty-nine national sporting organisations have now received ACC approval for the conduct of courses under the Scheme.

National Athlete Award Scheme

The National Athlete Award Scheme (NAAS) is a program which encourages high performance amateur sportspersons to maintain or improve performance levels. The Scheme provides direct assistance to athletes to offset the costs associated with competition and training.

To be eligible for assistance athletes or teams must be ranked in the top 16 in the world in their sport or must, by virtue of recent national or international performances, have demonstrated potential to achieve such a ranking.

In 1983-84, a total of $513,500 was paid in the form of grants to 169 individual athletes and 16 national sporting teams.

Life. Be In It

The Commonwealth resumed its financial support to Life. Be In It with a grant of $150,000 during 1983-84 to support specific national projects and activities which were in accord with the Government's commitment to improve the sport and recreational opportunities of all Australians. The grant was specifically applied to the Fun 'n Free, Huff 'n Puff and Come 'n Try programs; the Local Life Kit, Libby League Competition Kit and Home Recreation Kit. Funding will continue during 1984-85 to enable continuation and completion of these projects.

Fitness of Australian Youth

In February 1984 the Commonwealth Government made a grant of $27,000 to the Australian Council for Health, Physical Education and Recreation (ACHPER) to support the development of strategies for implementation of a national survey of the fitness, health and physical performance of Australian school children during 1985. The survey will provide important data on the health and fitness of young Australians and will provide a benchmark against which the effectiveness of health and fitness programs can be measured.

Employee Fitness Programs

Funding was made available in 1983-84 for the commencement of a range of projects associated with encouraging the adoption of fitness, health and lifestyle programs at the workplace. These included a study of the economic impact of low back pain and the role and effect of appropriate physical activity; the conduct of a pilot lifestyle program for public sector employees; and the production of a videotape promotion on employee fitness programs for small businesses in co-operation with Film Australia.

Australian Institute of Sport

The Australian Institute of Sport (AIS) was established in 1980 to provide Australia's top level athletes with the opportunity to develop their sporting potential through first class coaching at international standard facilities and with access to sports science and sports medicine backup. It does this through the provision of scholarships to top sportspeople in 9 sports—basketball, gymnastics, hockey, netball, soccer, swimming, tennis, track and field and weightlifting. Sportsmen and sportswomen attending the Institute are also able to undertake secondary or tertiary education or obtain regular employment. The Institute was established as a private company limited by guarantee, incorporated in the A.C.T. The AIS Board of Management, appointed by the Minister responsible for sport is responsible for developing the overall directional policy of the Institute. At the end of June 1984, the AIS had a staff of 85, comprising 31 administrative staff, 35 sports coaches and 19 sports science/sports medicine personnel. The Institute is located at the National Sports Centre at Bruce in the A.C.T. In 1983-84 the Government provided $5,560,000 to cover the operational and development costs of the Institute. In addition to the resident sports program, the Institute administers the National Training Centre Program, introduced in December 1982 to give primarily non-Institute sports an opportunity to use the AIS facilities, resources and expertise for national selection trials and team training, squad training, talent development programs, coaches' seminars and workshops for sports officials. Another program, introduced in October 1982, provides scholarships to the AIS for athletes and coaches from developing Commonwealth countries.

International Standard Sports Facilities

Over the period 1980–81 to 1983–84 the Commonwealth expended $16.5 million in conjunction with the States/Territories for the development of international standard sports facilities. The aim of the program is to encourage the States and Territories to construct a range of sporting facilities to give Australian athletes the opportunity to train and compete on a similar basis to their overseas counterparts and enable Australia to be more successful in attracting international competition. Funds available under the program were provided on a dollar for dollar basis for capital expenditure for those facilities which have been accorded the highest priority in the various States and Territories.

Facilities funded under the program include the State Indoor Sports Centre at Homebush Bay in New South Wales; the upgrading of Olympic Park and Sandown Motor Racing Circuit in Victoria; the upgrading of Belmont Rifle Range and QEII Stadium and the installation of lighting at the Chandler Velodrome in Queensland; the upgrading of the State Aquatic Centre—North Adelaide and the construction of the Parks Speed Roller Skating Circuit in South Australia; the Belmont Park Baseball Centre in Western Australia, the development of Lake Barrington International Rowing Course, Kate Reed Indoor Velodrome and the State Baseball Centre—Kingborough in Tasmania; and the construction of Marrara International Indoor Sports Stadium in the Northern Territory.

Major Events

1984 Olympic Games—Los Angeles, U.S.A.

Australia is one of only three countries which has competed in all modern Olympics. Preparations for Australia's participation in the 14th Winter Olympic Games in Sarajevo, Yugoslavia (8-19 February 1984) and the 23rd Summer Olympic Games in Los Angeles, U.S.A (28 July-12 August 1984) increased significantly during 1983–84. Responsibility for the preparation, outfitting, assembly and participation of Australian teams in the Winter and Summer Olympics, in accordance with the Charter of the International Olympic Committee (IOC), rests with the Australian Olympic Federation (AOF).

The AOF receives Commonwealth Government financial assistance in two ways. An annual grant is provided from the Sports Development Program towards ongoing administrative costs of the Federation. In 1983–84, $70,000 was allocated for this purpose. The Government also provides direct grants towards the preparation of the Australian Winter and Summer Olympic Games teams. For its 1984 Games preparations the AOF sought, and received, a Commonwealth financal commitment of $1.4 million towards an overall team preparation budget approaching $5 million. This commitment was approved for payment in two instalments as follows:

- In 1982–83 $500,000 was provided towards the AOF's pre-games training budget totalling $1.256 million;
- in 1983–84 the second and final instalment of $900,000 was provided towards the AOF's projected budget of approximately $3.8 million for team outfitting, assembly and participation costs.

Australia's 24 medal (4 gold, 8 silver, 12 bronze) performance at the Los Angeles Olympics, placed us 10th overall in the number of medals won and 14th in the gold medal tally. This achievement was only surpassed by Australia's performance at the 1956 Olympic Games in Melbourne where Australian athletes won 13 gold, 8 silver and 14 bronze medals to finish 3rd in both the gold and overall medal tallies.

Performances at Los Angeles represented Australia's best ever performance at an Olympic Games overseas, surpassing our performance at the 1960 Rome Olympics where 22 medals were won.

Complementing Australia's 24 medals at the Games were the following achievements:

World Records	1
Olympic Records	2
Commonwealth Records	13
Australian Records	28
Personal Bests	26

Additionally 76 Australian team members reached the finals in their respective competitions or achieved an eighth placing or higher where finals were not conducted.

Sport and Recreation for the Disabled

The National Committee on Sport and Recreation for the Disabled (NCSRD) was established in 1981 to advise the Minister on matters relating to the development of sport and recreation for disabled people. Its primary function is to make recommendations to the Minister for Sport, Recreation and Tourism on:

- priority areas for the development of sport and recreation for disabled people; and
- allocation of funds provided to assist sport and recreation for disabled people.

The Department of Sport, Recreation and Tourism administers the Program of Assistance for Sport and Recreation for Disabled People (PASRDP) based on advice from the NCSRD. The program has the aim of assisting disabled organisations and provide sport and recreation opportunities for disabled people.

In 1983-84, which was the third year of operation of the Program, $462,381 was allocated to various sport, recreation and community organisations and to individuals involved in the provision of sport and recreation services and programs, and in research associated with the participation of disabled people in sport and recreation.

The following table outlines the allocation of Program grants by category in 1983-84:

GRANTS TO PASRDP, 1983-84
(dollars)

		Administration			*International travel*				
		General	*Personnel*	*National championships*	*Competition*	*Meetings*	*Research projects*	*Recreation/ demonstration projects*	*Total*
Sport	$	12,330	58,800	15,000	125,250	14,748	3,500	5,200	234,828
Recreation	$	15,700					79,520	126,782	222,002
Nat Sem	$							5,551	5,551
Total	$	28,030	58,800	15,000	125,250	14,748	83,020	137,533	462,381

Australian Sports Commission

On 13 September 1984, the Government announced the establishment of the Australian Sports Commission to operate as an advisory body to the Government, pending legislation to establish it as a statutory authority. The Commission will aim to increase the level of direct input by the sporting community to the process of defining needs and priorities and to generate additional funds from the private sector, through a Sports Aid Foundation, to supplement funds from the Federal Budget.

The Commission comprises 21 members and will be run on a day-to-day basis by an executive staff based in Canberra.

TRAVEL

The following pages contain statistics of internal travel, travel to and from Australia, and tourism, together with some descriptive matter.

Internal travel

Domestic Tourism Monitor (DTM)

The Domestic Tourism Monitor is an ongoing survey of the travel patterns of residents within Australia. The Survey is commissioned by the Australian Standing Committee on Tourism (ASCOT) and is funded jointly by the States and Territories.

The DTM collects information on the reasons for travel, the mode of transport, type of accommodation, length of stay and main destination. The data is then cross-classified according to traveller characteristics such as age, sex, occupation, place of residence and income.

The DTM commenced in April 1978 and is now in its seventh year of operations.

Overseas travel

Statistics about travellers to and from Australia are classified in the first instance by the actual or intended length of stay in Australia or abroad; this classification distinguishes between long-term and short-term movement.

Statistics of permanent and long-term movement are shown in Chapter 6, Demography.

Statistics of short-term arrivals and departures which are in the nature of travel statistics are given below.

Short-term movement is defined as comprising visitor arrivals and Australian resident departures where the intention of staying in Australia or abroad is for a period of less than twelve months, together with departures of visitors and returns of Australian residents who have stayed in Australia or abroad for less than twelve months.

Short-term movement excludes persons who arrive in and depart from Australia on the same ship's voyage or on the same flight (variously called direct transit or 'through' passengers) or who change flights without leaving the airport's transit area; passengers on pleasure cruises commencing and finishing in Australia; and all crew. However, it includes persons who pass through the Customs Barrier and declare the purpose of their visit to Australia to be 'in transit'. Short-term visitors are more numerous than long-term visitors and have come to be regarded as 'tourists' by many users of the statistics.

SUMMARY OF SHORT-TERM TRAVELLER STATISTICS

	Overseas visitors		*Australian residents*	
	Arrivals in Australia	*Departures from Australia*	*Departures from Australia*	*Arrivals in Australia*
Annual average—				
1966–70	297,300	308,300	258,800	259,700
1971–75	475,900	479,000	647,600	631,400
1976–80	684,700	655,400	1,077,300	1,062,100
Year—				
1978	630,600	597,100	1,062,200	1,029,500
1979	793,300	752,400	1,175,800	1,144,300
1980	904,600	874,100	1,203,600	1,194,800
1981	936,700	900,400	1,217,300	1,181,400
1982	954,700	921,500	1,286,900	1,259,600
1983	943,900	928,900	1,253,000	1,219,700

In addition to the basic classification of travellers shown above, certain other characteristics are ascertained. These characteristics are: sex, age, marital status, country of citizenship, country of birth, occupation, intended or actual length of stay, purpose of journey, mode of transport, country of residence or where most time was or will be spent, country of embarkation or disembarkation, State of residence or where most time was or will be spent, and State of embarkation or disembarkation.

The categories shown in the previous table are cross-classified by various characteristics listed above and resulting statistics are shown in considerable detail in quarterly and annual publications.

Certain unpublished information is available on request. Selected traveller statistics are shown in the following tables.

Short-term travel is subject to marked seasonal variation, December being the peak month for the arrival of overseas visitors and the departure of Australian residents.

SHORT-TERM MOVEMENT: ARRIVALS AND DEPARTURES OF OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS BY MONTH OF ARRIVAL OR DEPARTURE, AUSTRALIA, 1983

(Persons)

	Overseas visitors		*Australian residents*	
Month	*Arriving*	*Departing*	*Departing*	*Returning*
January	80,900	110,300	88,400	151,000
February	78,400	84,000	75,400	84,600
March	75,700	81,400	111,200	85,100
April	70,400	75,800	96,300	88,000
May	58,500	70,100	114,600	98,000
June	62,700	55,500	108,300	93,300
July	84,000	66,300	113,400	102,800
August	80,500	85,300	116,600	99,900
September	63,100	71,900	103,400	126,500
October	79,700	74,200	87,300	127,300
November	92,300	78,200	88,200	90,700
December	117,600	75,800	149,800	72,700
Total	**943,900**	**928,900**	**1,253,000**	**1,219,700**
Sea travellers as a percentage of Total	0.60	0.44	0.62	0.50

SHORT-TERM MOVEMENT—DEPARTURES OF AUSTRALIAN RESIDENTS: STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1983 (a)

(Persons)

	Main purpose of journey						
Intended length of stay	*Visiting relatives*	*Holiday, accompanying business traveller(a)*	*Convention*	*Business*	*Employment*	*Other and not stated*	*Total*
Under 1 week	3,800	18,000	2,500	28,100	1,700	4,000	58,000
1 week and under 2 weeks	13,800	180,800	10,500	36,100	1,500	9,700	252,400
2 weeks and under 3 weeks	22,000	199,800	5,700	26,600	1,000	8,800	263,800
3 weeks and under 1 month	25,800	90,300	2,900	16,000	900	6,100	142,100
1 month and under 2 months	71,800	123,500	3,700	22,600	2,500	10,000	233,900
2 months and under 3 months	39,300	54,600	900	8,300	1,100	4,500	108,600
3 months and under 6 months	36,700	49,900	400	5,100	2,900	6,000	101,100
6 months and under 9 months	12,800	19,400	100	2,900	3,000	3,800	42,000
9 months and under 12 months	7,800	14,500	100	2,000	4,900	5,800	35,100
Not definite, not stated	3,000	8,100	200	1,200	500	3,000	16,000
Total	**236,600**	**759,000**	**27,000**	**148,900**	**19,900**	**61,600**	**1,253,000**

(a) Includes Student vacation.

SHORT-TERM MOVEMENT—ARRIVALS OF OVERSEAS VISITORS: STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1983 (a)

(Persons)

	Main purpose of journey							
Intended length of stay	*In transit*	*Visiting relatives*	*Holiday, accompanying business traveller*	*Convention*	*Business*	*Employment*	*Other and not stated*	*Total*
Under 1 week	62,000	9,300	81,800	2,600	39,000	1,000	6,800	202,600
1 week and under 2 weeks	100	23,100	100,000	6,400	39,300	400	7,000	176,400
2 weeks and under 3 weeks	*	35,900	70,400	4,600	20,000	300	5,900	137,100
3 weeks and under 1 month	*	36,100	38,000	1,400	5,800	400	2,800	84,500
1 month and under 2 months	*	80,900	59,200	1,200	9,800	800	6,500	158,500
2 months and under 3 months	*	30,900	18,400	100	3,200	700	3,800	57,300
3 months and under 6 months	*	32,600	19,900	100	2,800	2,000	6,700	64,100
6 months and under 9 months	*	14,500	14,400	*	1,400	2,100	3,400	35,900
9 months and under 12 months	*	2,900	3,600	*	1,300	3,600	8,200	19,600
Not definite, not stated	*	2,000	2,500	200	1,100	300	1,900	7,900
Total	**62,300**	**268,300**	**408,200**	**16,700**	**123,800**	**11,600**	**53,000**	**943,900**

(a) Asterisk (*) denotes that figures are subject to sampling variability too high for most practical purposes.

The average intended length of stay abroad of Australian residents departing in 1983 for short-term visits abroad was 53 days. The average intended length of stay in Australia by short-term visits from overseas was 45 days. Of course, statistics for Australian residents refer to their total time away from Australia; for overseas visitors they refer only to the Australian portions of their trips.

In the case of both Australian residents departing and overseas visitors arriving, the most common reason for visit was 'holiday', followed by 'visiting relatives' and 'business' as the second and third most common reasons.

SHORT-TERM MOVEMENT: ARRIVALS OF OVERSEAS VISITORS AND DEPARTURES OF AUSTRALIAN RESIDENTS BY COUNTRY OF RESIDENCE/INTENDED STAY AND INTENDED LENGTH OF STAY, AUSTRALIA, 1983

	Arrivals of overseas visitors—intended length of stay						*Departures of Australian residents—intended length of stay*				
Country of residence (visitors) and country of intended stay (residents)	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Not definite, not stated, etc.*	*Total*	*Under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Not definite, not stated, etc.*	*Total*
Africa											
South Africa	2,100	3,200	4,500	1,500	100	11,400	1,800	3,600	1,400	100	7,000
Other	1,000	1,300	2,200	1,200	100	5,800	1,800	3,500	2,100	100	7,300
Total, Africa	*3,100*	*4,500*	*6,700*	*2,700*	*200*	*17,200*	*3,600*	*7,100*	*3,500*	*200*	*14,300*
America											
Canada	4,100	13,900	8,900	5,900	200	33,000	3,000	7,500	3,300	200	14,300
U.S. America	36,600	70,500	22,500	9,200	800	139,700	71,400	45,200	10,300	1,500	133,400
Other	1,000	1,800	900	1,500	200	5,300	6,000	6,800	3,300	300	16,100
Total, America	*41,700*	*86,200*	*32,300*	*16,600*	*1,200*	*178,000*	*80,400*	*59,500*	*21,900*	*2,000*	*163,800*
Asia											
Hong Kong	2,900	11,400	4,300	2,000	200	20,900	67,800	7,300	3,000	700	78,900
India	1,100	1,600	1,500	1,200	100	5,400	3,900	6,000	2,700	200	12,800
Indonesia	3,400	5,300	3,000	1,400	200	13,300	68,600	7,800	3,100	800	80,200
Japan	41,000	24,400	2,900	3,100	600	71,800	18,700	4,000	1,500	100	24,300
Malaysia	3,500	11,900	6,200	5,800	300	27,700	25,100	9,400	3,700	500	38,900
Philippines	1,800	1,900	1,400	1,500	100	6,700	16,700	7,400	1,800	300	26,200
Singapore	6,400	16,200	5,000	2,100	100	29,700	45,000	6,800	2,500	500	54,900
Thailand	1,100	2,100	1,100	600	100	5,000	12,500	3,100	900	200	16,900
Other and unspecified	6,700	7,800	5,000	4,100	200	24,000	17,900	13,600	13,600	800	45,300
Total, Asia	*67,900*	*82,600*	*30,400*	*21,800*	*1,900*	*204,500*	*276,200*	*65,400*	*32,800*	*4,100*	*378,400*
Europe											
France	2,600	3,400	2,500	1,500	100	10,000	2,100	4,900	2,500	100	9,700
Germany(*a*)	4,800	9,300	13,900	6,300	400	34,600	3,700	10,300	4,300	200	18,700
Greece	400	300	1,000	2,400	100	4,200	1,900	7,700	14,500	700	25,000
Ireland(*b*)	400	900	2,200	1,300	*	5,000	500	2,300	1,100	100	4,000
Italy	1,300	3,300	4,000	3,400	200	12,000	4,400	17,500	13,000	800	35,600
Netherlands	1,400	3,300	7,200	2,800	100	14,900	1,900	6,100	3,000	200	11,200
Switzerland	1,700	3,000	3,900	3,100	100	11,600	1,300	3,200	1,000	100	5,600
United Kingdom	14,900	40,400	61,600	30,300	800	147,700	20,500	93,400	45,700	1,800	161,500
Yugoslavia	100	300	1,200	2,200	100	3,900	600	5,300	7,400	200	13,500
Other and unspecified	3,100	7,200	6,600	6,100	400	24,200	3,700	14,500	11,500	300	29,500
Total, Europe	*30,700*	*71,400*	*104,100*	*59,400*	*2,300*	*268,100*	*40,600*	*165,200*	*104,000*	*4,500*	*314,300*
Oceania											
Fiji	2,800	3,100	2,100	1,400	200	9,400	74,500	2,600	800	1,100	79,100
New Caledonia	2,700	2,700	2,400	400	100	8,500	18,800	500	100	200	19,900
New Zealand	44,800	136,300	29,600	1,300	1,400	225,000	168,300	33,500	7,200	2,500	211,700
Papua New Guinea	6,000	8,000	6,000	2,800	200	23,000	14,200	4,800	6,200	300	25,500
Other	2,300	2,500	1,700	1,300	100	7,800	37,200	2,600	1,400	700	41,200
Total, Oceania	*58,600*	*152,600*	*41,800*	*18,900*	*2,000*	*273,700*	*313,000*	*44,000*	*15,700*	*4,800*	*377,400*
Other	500	500	400	500	400	2,200	2,700	1,300	500	300	4,700
Total	**202,500**	**398,000**	**215,800**	**119,600**	**7,900**	**943,900**	**716,300**	**342,500**	**178,200**	**16,000**	**1,253,000**

(*a*) Comprises the German Democratic Republic and the Federal Republic of Germany. (*b*) Includes Republic of Ireland and Ireland, undefined.

Survey of International Visitors (IVS)

A survey on the travel behaviour and attitudes of international visitors to Australia was commissioned by the Australian Tourist Commission, and conducted by the Roy Morgan Research Centre, for the years 1979-80 and 1981. Commencing in 1983 the survey is being conducted on an annual basis.

Details contained in the survey include the arrival statistics, profile, itinerary, trip satisfaction and expenditure of short term visitors to Australia (defined as foreign residents staying in Australia for a period of less than twelve months).

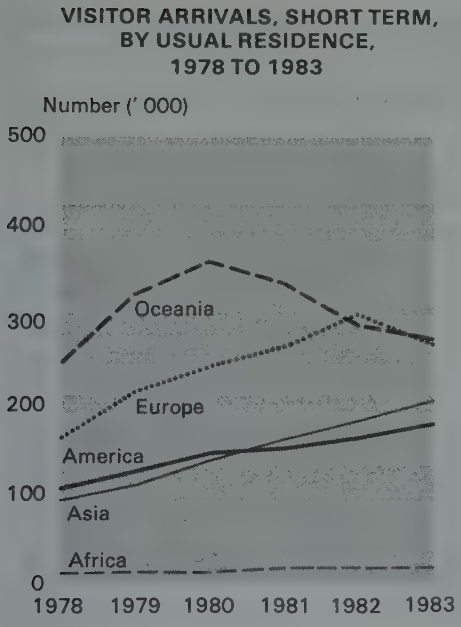

VISITOR ARRIVALS, SHORT TERM, BY USUAL RESIDENCE, 1978 TO 1983

PLATE 49

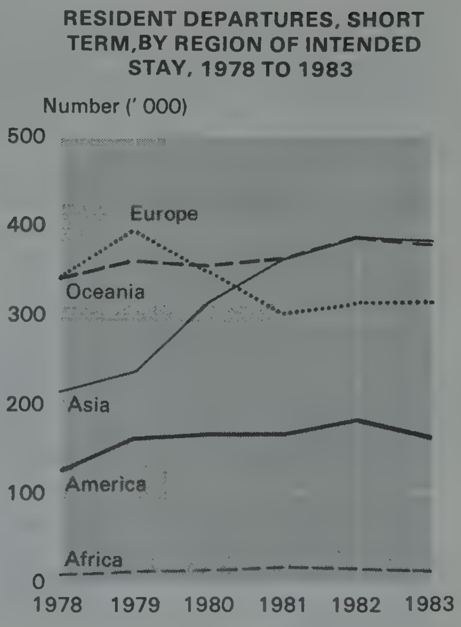

RESIDENT DEPARTURES, SHORT TERM, BY REGION OF INTENDED STAY, 1978 TO 1983

PLATE 50

Tourism

The Department of Sport, Recreation and Tourism is involved in a range of policy, administrative and consultative activites designed to encourage the efficient development of tourism in Australia in co-operation with the industry and with Commonwealth and State/Territory government departments. Major functions of the department include: formulation of policy proposals, transmission of advice to the Minister on industry issues, administration of the *Australian Tourist Commission Act*, conduct of research into the tourist and travel industries, provision of secretariat support to the Tourist Ministers' Council, the Australian Standing Committee on Tourism and the Tourism Advisory Council and liaison with international tourism organisations.

Australia has been a full member of the World Tourism Organization (WTO) since September 1979. The WTO is an intergovernmental technical body examining all sectors of tourism on a world wide basis. Australia is Chairman of the Organization's Regional Commission for East Asia and the Pacific (CAP).

Australia is also a member of the Organization for Economic Co-operation and Development Tourism Committee. The Committee promotes co-operation between member countries in the field of tourism, through examination of issues such as transportation, energy, accommodation, employment, vestment and profitability in the light of changing economic conditions. For further information on Tourism in Australia *see* Special Article at the end of this chapter.

Australian Tourist Commission

The Australian Tourist Commission was established in 1967. It is a statutory body whose purpose is to encourage travel to and within Australia. It has twelve commissioners including representatives of the Commonwealth, State and Territory governments and the tourist industry. Its 1983–84 budget was $19.5 million.

The Commission engages in a wide variety of marketing activities including consumer and trade advertising, industry seminars and familiarisation visits for travel agents, journalists and photographers. The Commission has its head office in Melbourne and branch offices in Sydney, Auckland, London Frankfurt, New York, Los Angeles, Tokyo and Singapore.

Tourist Accommodation

Census of Retail Establishments and Selected Service Establishments. Data relating to accommodation establishments have been collected as part of the 1979–80 census. For the detailed statistics *see Census of Retail Establishments and Selected Service Establishments, Details of Operations by Industry Class, Australia, 1979–80* (8622.0). (*See* also Chapter 17, Manufacturing and Internal Trade).

Surveys of Tourist Accommodation Establishments. Quarterly accommodation surveys were commenced in the September Quarter 1975 and data published from these surveys include room occupancy, bed occupancy and takings from accommodation.

The main purpose of the surveys of tourist accommodation establishments is to measure the utilisation of available tourist accommodation. For detailed statistics from the survey *see Tourist Accommodation, Australia* (8635.0).

TOURIST ACCOMMODATION (*a*)

		March quarter 1983	*June quarter 1983*	*September quarter 1983*	*December quarter 1983*	*March quarter 1984*	*June quarter 1984*
LICENSED HOTELS WITH FACILITIES(*b*)							
Establishments	Number	1,055	1,046	1,039	1,050	1,052	1,045
Guest rooms	"	31,369	31,468	31,471	31,800	31,910	32,172
Bed spaces	"	75,467	76,012	75,894	76,775	77,601	78,445
Room occupancy rates	%	48.6	47.2	51.8	50.8	52.0	52.2
Bed occupancy rates	%	31.4	29.7	33.3	31.9	33.0	32.6
Gross takings from accommodation	$'000	62,643	61,644	70,978	71,141	75,025	74,213
MOTELS, ETC.(*b*)							
Establishments	Number	2,695	2,722	2,733	2,766	2,774	2,796
Guest rooms	"	69,176	69,968	70,281	71,148	71,590	72,474
Bed spaces	"	203,571	205,457	206,589	209,337	211,270	213,832
Room occupancy rates	%	54.2	53.3	57.4	53.0	55.5	54.9
Bed occupancy rates	%	34.7	32.8	35.7	32.3	35.5	33.9
Gross takings from accommodation	$'000	122,037	121,017	137,213	127,114	138,055	138,878
TOTAL							
Establishments	Number	3,750	3,768	3,772	3,816	3,826	3,841
Guest rooms	"	100,545	101,436	101,752	102,948	103,500	104,646
Bed spaces	"	279,038	281,469	282,483	286,112	288,871	292,277
Room occupancy rates	%	52.4	51.4	55.7	52.3	54.4	54.1
Bed occupancy rates	%	33.8	31.3	35.0	32.2	34.8	33.6
Gross takings from accommodation	$'000	184,680	182,661	208,191	198,255	213,080	213,091
CARAVAN PARKS(*b*)							
Establishments	Number	1,922	1,856	1,867	1,875	1,876	1,870
Powered sites	"	141,741	136,786	138,426	139,763	139,914	139,849
Unpowered sites	"	62,174	59,799	60,593	61,876	62,251	62,538
Cabins, flats, etc.	"	3,749	3,631	3,622	3,802	3,809	3,935
Total capacity	"	*207,664*	*200,216*	*202,641*	*205,441*	*205,974*	*206,322*
Site occupancy rates	%	32.0	21.6	21.1	23.5	30.4	22.3
Gross takings from accommodation	$'000	36,587	25,497	27,240	31,704	38,041	29,290

(*a*) For the purposes of this survey, a tourist accomodation establishment is defined as an establishment which predominantly provides short term accommodation (i.e. for periods of less than two months) available to the general public. (*b*) For definitions *see Tourist Accommodation, Australia* (8635.0).

BIBLIOGRAPHY

ABS Publications

Census of Retail Establishments and Selected Service Establishments, Details of Operations by Industry Class, Australia, 1979-80 (8622.0)
Tourist Accommodation, Australia (8635.0)

Other Publications

Additional information relating to this chapter is available in the annual reports and other publications of the Departments and Organisations referred to.

TOURISM IN AUSTRALIA

(*This special article has been contributed by the Department of Sport, Recreation and Tourism*)

Introduction

Australia is a country rich in tourism resources. However it is only in recent times that the full potential of these resources has been realised by Government, industry and the public.

Economic and social importance of tourism

The contribution of the tourism industry to economic growth and employment is now being recognised although, in international terms, Australia still lags well behind in tourism receipts. In 1982, Australia's relative share of the market represented only 1.4 per cent of the OECD total, placing Australia on a par with countries such as Sweden and Portugal but eight to ten times below the level of the United States, Italy or France.

A 1981-82 survey on the economic significance of tourism by the Bureau of Industry Economics (BIE), showed that tourism makes a considerable contribution to both national income and employment and warranted more recognition as a growth industry. The BIE study estimated that tourism contributes 4.8 per cent to Australia's Gross Domestic Product (GDP) and is responsible for employing 340,000 people or 5.2 per cent of the workforce. By way of comparison, tourism's contribution to GDP and employment is equivalent to the combined textile, clothing and motor vehicle industries.

During the 12-month period of the survey, it was estimated that the total gross expenditure by both domestic and international tourists in Australia was $12.7 billion. After deducting transfers, imports and indirect taxes, the expenditure amounted to $7 billion, 15 per cent of which was due to international visitor expenditure. The BIE report also estimates that on average $1 million of international visitor expenditure creates, directly or indirectly, 34 jobs.

Some insights are provided by the BIE report into characteristics of employment in the tourism industry. Most of the expenditure generated by tourism, for example, is channelled into industries with a high degree of labour intensity. These include the restaurant and catering trade, hotels and motels, transport and storage, and retail trading. Tourism also makes a major contribution to the provision of employment opportunities for some disadvantaged groups. While women hold only 36.7 per cent of jobs in the workforce as a whole, they hold 40.3 per cent of jobs in the tourism industry. There is also a notable level of unskilled and semi-skilled employment in the industry. Tourism has proved to be a large supplier of part-time work (defined as less than 35 hours per week) and in particular, of short weeks consisting of 24 hours or less. The industry therefore has considerable potential for providing employment for those groups which find more conventional working hours unsuitable.

During the period of the BEI's survey, Australians undertook 52.3 million trips of one night or more away from home in Australia. The average expenditure per trip was estimated as $156 per person. In addition, there were a further estimated 89 million day trips taken with an average expenditure per person per trip of $20. At the same time, estimates by the Australian Tourist Commission indicate that 936,700 foreign visitors arrived in Australia and spent an average $1,121 per person per trip. The average duration of these trips was 31 days.

Since the BIE's survey the levels of both domestic and international travel have increased. For the twelve months ended December 1983, a total of 54 million domestic trips were recorded while international visitors for the year totalled 943,900. The number of Australian residents departing for overseas trips in the same period was 1.25 million with an average expenditure of $1360 per trip.

The largest share of visitors to Australia has traditionally been from its closest neighbour, New Zealand. Currently, visitors from New Zealand account for around one quarter of all arrivals; other major markets include the United Kingdom and Ireland, the United States, Japan, Central Europe and the Asian region.

Both the large number of departures from Australia and the fact that Australians on average spend more on overseas trips than inbound tourists, account for the negative tourism balance of payment. Recent trends, however, indicate that the gap between travel credit and debit is narrowing.

Allocation of tourism responsibilities within the public sector

The Department of Sport, Recreation and Tourism was created in March 1983 in recognition of the importance of tourism to the Australian economy and the role of Government in providing support to the Australian Tourist Commission and the industry. In broad terms the Commonwealth Government is responsible for international aspects of tourism development and the formulation and implementation of relevant national policies. The State and Territory governments, in conjunction with local governments, bear responsibility for the provision of public infrastructure and facilities, and other more specific, localised services and regulations. Certain responsibilities with broad implications or significance are shared between Federal, State and Territory governments.

Role of the Commonwealth Government

The Federal Government's stated objectives are to formulate a long-term national policy on tourism in co-operation with the States and Territories as well as the tourist industry. Also to encourage State and Territory governments to assume major responsibility for the promotion of tourism within Australia.

Specific mechanisms exist to achieve these objectives through consultation and liaison. These include the following:

- The Tourist Ministers' Council (TMC), which was established in 1959 and comprises the Commonwealth, State and Territory Ministers responsible for tourism.
- The Australian Standing Committee on Tourism (ASCOT) which comprises representation from the Department of Sport, Recreation and Tourism, the Australian Tourist Commission and the State and Territory Directors of Tourism or their equivalent. The Tourism Research Committee (TRC), which undertakes research as directed by ASCOT, comprises research officers from the Department of Sport, Recreation and Tourism, Australian Tourist Commission and the State and Territory authorities responsible for tourism.
- The Tourism Advisory Council (TAC) which is chaired by the Minister for Sport, Recreation and Tourism and includes senior representatives from the tourism industry and trade unions; and
- The National Tourism Industry Training Committee (NTITC), a tripartite body of representatives from industry, union and government, concerned with promoting, developing and co-ordinating training in tourism.

The Department is also responsible for Australia's bilateral and multilateral tourism relations and maintains a high international tourism profile through Australia's membership of the following:

- The World Tourism Organization (WTO)—an executing agency of the United Nations Development Program (UNDP). Australia is Chairman of WTO's Regional Commission for East Asia and the Pacific (CAP).
- The Tourism Committee of the Organization for Economic Co-operation and Development (OECD).
- The Economic and Social Commission for Asia and the Pacific (ESCAP).

Australia hosted the 13th Meeting of WTO/CAP in Canberra on 11 and 12 October 1984. The meeting was preceded by a two day seminar on 'Development of Human Resources to Meet Tourism Training Needs'. This topic was of special relevance to the Asia-Pacific area, given prevailing high tourism growth and increasing awareness of the importance of tourism in countries' economies.

National tourism awards

As a way of heightening awareness of the Australian tourism product and to encourage excellence in the industry, the Department inaugurated an annual series of National Tourism Awards. These awards were presented on 26 September 1984, the eve of World Tourism Day. Major winners were Paul Hogan for his part in tourism promotion activities and Alan Bond for the awareness of Australia created by the Americas' Cup victory.

Australian Tourist Commission activities

The Australian Tourist Commission (ATC) plays a crucial role as Australia's national tourism promotion agency. The Commission has received a budget increase of 128 per cent from 1983–84 to 1984-85 to take advantage of a heightened awareness of Australia as a holiday option both by Australians and overseas tourists.

Major initiatives which the ATC's increased funding in 1983–84 made possible included:

- Enhanced awareness advertising in several markets, and in particular on the west coast of the United States where television commercials generated over 70,000 phone responses from consumers requesting further information.
- The successful west coast campaign has been extended to the east coast where interest is running high following the much publicised campaign launch by the ATC and Paul Hogan in September 1984 at the New York Yacht Club.
- Expanded overseas representation.
- Australian Bandwagon (mobile display van) introduced in Japan and Europe.

The ATC launched a major domestic tourism campaign in March 1984. This national marketing campaign, in conjunction with the States, Territories and Industry, included intensive television advertising and the production of 2 million copies of an 'Australian Made Holidays' booklet distributed through the written media and the travel trade generally.

The Tourism Industry

The tourism industry incorporates a wide range of activities, these include the transport, accommodation, food and hospitality sectors, as well as many other sectors. Details of the major components, transport and accommodation are shown below.

Transport

Government initiatives in this vital area are summarised below:

- Airport development

Major airport upgrading projects estimated to cost $33 million have been approved in the 1984–85 Budget for future Townsville terminal area redevelopment, construction of additional taxiways at Sydney airport and Canberra airport facility improvements.

In addition to these new civil works, major projects already underway include Brisbane airport redevelopment, Perth airport new international terminal and Darwin airport redevelopment work. These projects will expect to take total expenditure on related airport development to $111 million in 1984–85.

Cairns international airport was opened on 31 March 1984 accompanied by a special promotional fare for inaugural Qantas flights between Cairns and the United States west coast.

- Air Routes

A number of new international air routes were established during 1983. They include Brunei-Darwin, Brisbane-Noumea, Melbourne-Noumea, Adelaide-London and Melbourne/Sydney-Manchester.

The first commercial jet, a Boeing 737, lands on the new airstrip at Hamilton Island, the largest island resort in Australia.

Australian Information Service

- Airfares

  In February 1984 the Independent Airfares Committee (IAFC), which has the authority to approve domestic airfares, approved new touring airfares for international visitors to Australia for the two major domestic airlines. A similar fare structure for domestic tourists was approved in March 1984.
- Roads

  More than 80 per cent of domestic tourist trips occur by private motor vehicle, bus or coach. The 1984–85 Federal Budget provided $1,245 million to the States and Northern Territory for highway upgrading projects.
- Bass Strait ferry

  A replacement vessel for the Bass Strait ferry service between Melbourne and Devonport is to be introduced in March 1985. The new vessel and associated terminal works, to the value of $26 million, will substantially boost the passenger and vehicle capacity of this service.

Accommodation

The accommodation sector is also a key component of the tourism industry. In June 1984 tourist accommodation establishments employed 70,954 people, an increase of 5.5 per cent on the same quarter in 1983.

The value of proposed tourist related developments as at the end of the June quarter 1984 was $7,066 million including 16 new international hotels. Tourist accommodation and tourist resort projects commenced during the June quarter are valued at $171 million, and will provide 2560 rooms or units. These include the Intercontinental in Sydney (545 rooms), the Menzies (250) and Hyatt (480) in Melbourne, the Orchard (200) in Perth, the Beaufort (250) in Darwin and the Paradise Centre (406) and Jupiters' Casino (622) on the Gold Coast.

A similar upsurge of construction activity is occurring in the man-made tourist attractions sector. Figures provided by State and Territory Government departments indicate that as at 30 June 1984 new tourist attractions to the value of $175 million were firmly committed throughout Australia.

Tourism—A growing industry

As a country Australia offers a variety of tourism experiences. Its natural features of tropical forests, mountain ranges and beaches provide a sharp contrast to the isolated outback, desert regions and attractions of historical nature.

In the wider context the Australian Tourism Industry has been identified by all Australian governments as a growth area, offering attractive opportunities for investment in tourism development projects.

CHAPTER 27

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; the Territory of Christmas Island; and the Territory of Ashmore and Cartier Islands.

Information on all Territories except Ashmore and Cartier Islands is contained in the following pages, details of the acquisition of all the Territories can also be found in Chapter 1 of this Year Book. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* (1306.7) and the *Australian Capital Territory Statistical Summary* (1307.8) issued by the ABS. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects.

THE NORTHERN TERRITORY

General description

The total area of the Northern Territory is 1,346,200 square kilometres.

The Northern Territory seat of Government is Darwin on the North Coast. The estimated resident population of the Darwin Statistical Division at 30 June 1983 was 63,404.

Northern Territory Self-Government

The Northern Territory was established as a self-governing territory by the *Northern Territory (Self-Government) Act 1978* of the Commonwealth. Under that Act, the Commonwealth transferred most of its powers to the Government of the Northern Territory.

In all fields of transferred power, the Government is similar to that of the Australian States, with some differences in titles, for example there is an Administrator instead of a Governor and a Chief Minister instead of a Premier.

The Administrator, appointed by the Governor-General, has responsibility for administering the Government of the Northern Territory. The Administrator is advised by an Executive Council comprised of all Northern Territory Ministers, led by the Chief Minister. The Administrator acts with the advice of the Executive Council on all matters transferred to the Northern Territory. He acts with Commonwealth advice on matters not transferred.

The Legislative Assembly of the Northern Territory is the Northern Territory's Parliament. It has 25 Members, which are elected for a period of four years. A Speaker is elected by, and Ministers are appointed from, the Members of the Legislative Assembly. A Ministry of eight is responsible for the administration of all transferred powers and acts through a number of departments and authorities, most of which are staffed by the Northern Territory Public Service.

Local Government was established in Darwin in 1957 and afterwards in regional centres. Municipal councils are elected by universal adult franchise, with elections at intervals of not more than three years. Provision has been made for a limited form of local government by smaller communities. There has been considerable interest in this provision, particularly in Aboriginal communities.

Development of Administration

Upon the extension of New South Wales westwards to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911.

From 1911 until 30 June 1978, the Commonwealth administered the Northern Territory under the provisions of the *Northern Territory (Administration) Act 1910*, as amended. The Act provided for an Administrator, appointed by the Governor-General, to administer the Northern Territory on behalf of the Commonwealth Government.

By amendment of the Act in 1947, a Legislative Council comprising seven official and six elected members, with the Administrator as President, was created to make laws for the peace, order and good government of the Northern Territory. Composition of the Legislative Council was changed by further amendment in 1959 to provide for six official members, three nominated non-official members and eight elected members, and for an Administrator's Council to advise the Administrator. The Act was further amended in 1974 to provide for a Legislative Assembly of 19 elected Members and for a Speaker to be one of those Members, elected by the Members.

Laws passed by the Assembly were presented to the Administrator for assent. The Administrator was required to reserve laws on specific subjects for the pleasure of the Governor-General who was empowered to assent, withhold his assent or refuse his assent in part to such laws, or to return them to the Assembly with recommended amendments.

On 1 January 1977, the Commonwealth Government began a program of transferring executive powers to the Legislative Assembly by amendment of the *Northern Territory (Administration) Act*. A separate Northern Territory Public Service was created and administrative powers were transferred. Positions of Executive Member were created under the Act. These Members exercised ministerial-type powers in respect of transferred matters such as policy, fire brigade, local government and correctional services. An Executive Council replaced the Administrator's Council.

On 1 July 1978, the *Northern Territory (Self-Government) Act* came into force and established the Northern Territory as a body politic under the Crown. This Act also provided for the appointment of an Administrator by the Governor-General. It created offices of Ministers of the Northern Territory who, together with the Administrator, comprise the Executive Council of the Northern Territory. A Northern Territory Government, comprised of Ministers of the Northern Territory, was established with full responsibility for a range of state-type transferred powers administered through a Northern Territory Public Service and a Treasury. A Northern Territory flag was raised for the first time on 1 July 1978, the date upon which the Northern Territory became self-governing.

Major matters not transferred on 1 July 1978 were the mining of uranium and other prescribed substances, Aboriginal land matters, health, education and the Supreme Court. Powers in respect of health, education and the Supreme Court were progressively transferred from the Commonwealth to the Northern Territory Government during 1979.

At the end of 1979, the only major powers retained by the Commonwealth in the Northern Territory were those relating to rights in respect of Aboriginal land and the mining of uranium and other prescribed substances. Since the end of 1979, the Northern Territory, although remaining a Territory of the Commonwealth and still subject to Commonwealth laws made under Section 122 of the Constitution, is in most respects a self-governing Territory.

The Northern Territory is represented in the Parliaments of the Commonwealth by one Member in the House of Representatives and two Senators, whose terms of office coincide with that of the Member in the House of Representatives. Since October 1984 the Cocos (Keeling) Islands have been included in the Northern Territory electorate for the purposes of all Federal elections and referenda.

Physical geography

The Territory is within the torrid zone, with the exception of a strip about 300 kilometres wide which lies south of the Tropic of Capricorn.

The low flat coastline seldom reaches a height of 30 metres. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The coastline of 6,200 kilometres is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port for general use, however, is Darwin.

Inland, the country generally is devoid of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior system. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east-west trend.

Climate, fauna and flora

There are two main climatic divisions: the wet season, November to April; and the dry season, May to October. The changes of weather are uniform and regular. Nearly all the rainfall occurs in the summer months.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, freshwater tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of freshwater fish and littoral Mollusca. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. Mosquitoes and sandflies are very troublesome in the 'top end', particularly in the wet season. Buffaloes exist in large herds on the northern coastal plains. Most types of native fauna are protected.

The vegetation is north Australian in type, but a number of forms belong to the Malayan and Oceanic regions. The climate and generally poor soils associated with it give rise to tropical savannah vegetation, with the size and volume of woody material present being closely related to rainfall and the quality of the forests decreasing strikingly as one proceeds inland from the northern coastline. In the north, cypress pine (which is termite resistant), ironwood, bloodwood and paperbark timbers are cut and milled for local building purposes. Further inland, particularly on the Barkly Tablelands and parts of the Victoria River district, there are better grazing grasses and some shrubs, while the wide belt of sandy plain between the Barkly Tableland and the ranges in the Alice Springs area carries mainly spinifex grass and low scrub. The plains of the Alice Springs district carry chiefly an acacia scrub known as mulga, spinifex and other sparse grasses. The principal families represented in the interior are *Gramineae, Chenopodiaceae, Compositae* and *Mimosaceae.*

Water

The Northern Territory Government provides water and sewerage facilities in four of the five major centres—Darwin, Alice Springs, Katherine and Tennant Creek. In the other major centre, Nhulunbuy, the mining company North Australian Bauxite Company provides those services. Facilities are also provided for numerous Aboriginal communities and all smaller gazetted towns such as Pine Creek, Mataranka, Elliott and Finke. Facilities for the new Yulara Tourist Village near Ayers Rock are provided by the Yulara Corporation, and in Jabiru they are provided by the Jabiru Town Development Authority.

Darwin is served by the Darwin River Dam, some 70 kilometres from the city. The rockfill dam was completed in 1972. It is 30 metres high with a crest length of 564 metres, has an active storage of 230 million cubic metres and a safe draft of 90 megalitres a day. Studies are also being carried out to identify future sources to meet the growing needs of the Darwin region.

Katherine is supplied with treated water from the Katherine River, but with the proposed development of Tindal RAAF base near Katherine, feasibility studies are in progress to assess future supplies from various dam sites on the Katherine River system.

Alice Springs, Tennant Creek and all other towns and communities are supplied by bores from groundwater sources. Alice Springs has twenty production bores at Roe Creek. Tennant Creek has ten at Kelly Well and three at Cabbage Gum.

Soil conservation

The Conservation Commission of the Northern Territory administers soil conservation and control legislation, undertakes resource inventories to assess land capabilities and conducts soil erosion works on behalf of the Government and the private sectors.

Population

See also Chapter 6, Demography.

The estimated population of the Northern Territory at 30 June 1983, was 133,876 persons.

Aboriginal Affairs

Policy

The Government is committed to policies of Aboriginal self-management at all levels. Involvement of Aboriginals in delivery and planning programs, and in all stages of the development and implementation of policy is paramount.

The basis of the Government's approach is to secure for Aboriginals access to government services equal to that accorded other Australian citizens, together with additional services appropriate to Aboriginals' state of extreme disadvantage, and, in recognition of a community obligation deriving from Aboriginals' past dispossession and dispersal.

Legal status

As Australian citizens, Aboriginals are entitled to equality before the law. For the purpose of administering various programs designed to benefit Aboriginals, the Department of Aboriginal Affairs and other Commonwealth Government departments and agencies define an 'Aboriginal' or 'Torres Strait Islander' as a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives.

Land and land rights

Aboriginals who are able to prove strong traditional links with unalienated Crown land may make a claim before the Aboriginal Land Commissioner, a judge of the Northern Territory Supreme Court. The *Aboriginal Land Rights (Northern Territory) Act 1976* requires the Land Commissioner, in hearing a claim, to consider a number of matters in addition to traditional ownership before making a recommendation to the Minister for Aboriginal Affairs. The Minister can then accept or reject the Aboriginal Land Commissioner's recommendations.

Aboriginal land tenure, freehold or in the process of being granted freehold amounts to 429,452 square kilometres or 31.9 per cent of the Northern Territory. Leasehold and reserve mission land total 19,638 square kilometres.

Freehold titles to Aboriginal land are held by Aboriginal Land Trusts and the land is administered by Aboriginal Land Councils.

Minerals on Aboriginal land remain the property of the Crown. The Aboriginal Land Rights Act provides, however, that mineral exploration can only proceed with the approval of the appropriate land council which in turn must abide by the wishes of the traditional Aboriginal owners of the area concerned. This veto power can be overruled if the Governor-General, by Proclamation, declares that the national interest requires the grant of a mining interest, and neither House of Parliament disallows that Proclamation. Pre-existing mining interests were exempt from the requirement for Aboriginal consent. In all cases however, agreement must be reached on terms and conditions of mining and the Minister for Aboriginal Affairs is able to appoint an arbitrator in cases where Aboriginal consent is not required but a land council is unable or unwilling to reach agreement with a mining company.

Royalties from mining on Aboriginal land are paid into an Aboriginals Benefit Trust Account and are distributed to pay administrative expenses of land councils, to communities affected by mineral developments and, on the recommendation of an advisory committee, to Aboriginal communities of the Northern Territory generally. Control of uranium mining has been reserved by the Commonwealth and special arrangements have been made between the Commonwealth and the Northern Territory Governments in relation to payments in lieu of royalties.

Aboriginals on Utopia Station in the Northern Territory, speaking with Australian Government officials. The Angarapa Aboriginal Land Trust was presented with title deeds to the station in July 1983.

Australian Information Service

Aboriginal communities are also being assisted to purchase land on the open market. An Aboriginal Land Fund Commission was established in 1974 for this purpose. This function was taken over on 1 July 1980 by the Aboriginal Development Commission which assists Aboriginal and Torres Strait Islander communities, groups and individuals to acquire land for a variety of purposes, engage in business enterprises, obtain finance for housing and other personal needs, and to receive training where necessary.

Community services and affairs

Government policy in the administration of Aboriginal affairs is to encourage State and Commonwealth departments and instrumentalities to provide services to Aboriginals as to other Australian citizens and to take special measures to ensure that these services are appropriate, accessible and reflect the variety of Aboriginal life styles. In line with the transfer of other functions to the Northern Territory Government on 1 July 1978, the Northern Territory Government has assumed responsibility for the provision of major services to Aboriginal communities including essential services such as water and power supply, health, education and support for local government. Subsequently, the Commonwealth has provided annual grants to the Northern Territory Government and to the Aboriginal Development Commission for housing programs for Aboriginals.

Special programs for Aboriginals

Attention is being given to changing the institutional character of Aboriginal communities in the Northern Territory. Support is designed to encourage and strengthen the capacity of Aboriginals to manage their own affairs, to increase their economic independence, and to reduce social handicaps facing them.

Government policy is to provide Aboriginal primary school children in Aboriginal communities with education in their own language as far as practicable. Bilingual education programs initiated in Northern Territory Aboriginal communities in 1973 have been expanded and are operating in several schools.

The Aboriginal Legal Aid service is supported by the Department of Aboriginal Affairs and operates to ensure that Aboriginals have access to legal aid advice and are competently represented in the courts.

Production

See also the chapters dealing with particular subjects.

Land tenure

On 31 July 1984, 23,303,785 hectares were held under freehold title; 69,879,000 hectares under leasehold; 2,962,500 hectares under various licences; 26,927,100 hectares was Aboriginal land (held under the Aboriginal Land Rights Act); 69,385 hectares set aside for Government use; and 11,478,230 hectares unalienated. Land rent collected for the year 1983-84 amounted to $500,553.

Following the report of the Aboriginal Land Rights Commissioner in April 1974, the Commonwealth Government introduced the *Aboriginal Land Rights (N.T.) Act 1976*. This Act which commenced on Australia Day, 26 January 1977 gives traditional Aboriginals inalienable freehold title to former Aboriginal reserves and some other land, amounting to approximately 19 per cent of the Northern Territory, and provides a procedure for them to claim title to other areas of unalienated Crown Land. On 31 July 1984, 26,692,400 hectares were designated as Aboriginal Land under the Act, 18,673,600 hectares had been recommended as the result of claims, while claims were pending in respect of 17,754,800 hectares.

With the commencement of the *Crown Lands Amendment Act (No. 3) 1980* most existing leases in the Territory were automatically converted to freehold tenure making it the rule rather than the exception. Most Pastoral Leases and all Special Purposes Leases were excluded from automatic freeholding.

The various forms of lease or licence of lands are as follows:

Pastoral leases —granted for periods not exceeding 50 years.
Crown leases (Term) —granted for a term of years, and in majority of cases can be converted to freehold when developed.
Crown leases (Perpetual) —granted in perpetuity.
Special purposes leases —granted for a term of years or in perpetuity for purposes other than pastoral, agricultural or mining, or for private residential purposes within a town.
Grazing licences —granted to graze stock on Crown Lands for periods not exceeding one year.
Occupation licences —granted for manufacturing, industrial or any prescribed purposes for periods not exceeding five years.
Miscellaneous licences —granted for periods not exceeding one year.

Pastoral and agricultural industries

Beef cattle production is the major rural industry in the Northern Territory. The beef industry has been characterised throughout its history by a slow rate of expansion due mainly to the quality of pastures in the top end of the Territory, periodic droughts in the Alice Springs district and remoteness from large domestic markets and other market infrastructure. Although the rate of expansion has been slow it has been persistent. Significant developments in the last two decades include: the establishment of a beef road system; expansion of market outlets, including live animal exports to Malaysia and Brunei; introduction of tropical cattle breeds in the northern regions; continued private investment in water supplies, fences and yards; and development of low cost aerial mustering techniques. Export licenced abattoirs now operate in Alice Springs, Tennant Creek, Katherine, and Point Stuart and Mudginberri on the northern coast. The latter three abattoirs process both cattle and buffalo for export. The gross value of cattle production in 1983-84 is estimated to have been $65 million.

In the Darwin district, the cattle industry has continued to be augmented by the buffalo meat industry. Interest in buffalo control has received a significant boost due to the recent development of a high-priced live export trade with Indonesia. Buffalo surplus to the live export trade requirements continue to be slaughtered predominantly for the West German market. The gross value of the buffalo industry in 1983-84 was of the order of $5 million.

Both the cattle and buffalo industries of the Northern Territory are experiencing dramatic changes in management practices due to a campaign to eradicate brucellosis and tuberculosis from the herds. The campaign requires all stock to be manageable to the extent where a 100 per cent efficient muster can be carried out and so controlled stock are segregated and protected from possible infection by non-controlled stock. In those areas where it is not possible to muster and test stock for the presence of the diseases, the program is proceeding by way of partial and total destocking orders. Owners of destocked livestock are assisted by way of compensatory payments.

In 1980 the Agricultural Development and Marketing Authority (ADMA) was established to develop broadacre cropping industries to the point where export sales were viable. The ADMA has developed six project farms in the Douglas-Daly basin, 250 kilometres from Darwin. These farms provide a commercial environment for the development of the required levels of agronomic and economic efficiency. ADMA operates as the handling and marketing authority for these and other non-project farmers in the Territory. Grain handling depots have been established at Katherine and Douglas-Daly. Gross value of production in 1983-84 was $1.2 million.

The horticultural industry in the Northern Territory has experienced very rapid expansion over the last four years. Value of production has increased from just over $200 000 in the early 1980s to in excess of $3 million in 1983-84. Very significant plantings of mangoes are as yet immature. The value of mango production is predicted to be in excess of $10 million by 1990 and will continue to expand thereafter. Commercial trials of cashew production are being undertaken and it is expected that these will be the forerunner for a $5 million industry. The top end of the Northern Territory has a natural advantage for horticultural production due to its capacity to produce the earliest maturing product in Australia for many lines of tropical fruit and vegetables. Table grape production in the Alice Springs district enjoys a similar advantage.

NORTHERN TERRITORY: NUMBER, AREA AND LAND UTILISATION OF AGRICULTURAL ESTABLISHMENTS

					Total	
	Number of agricultural establishments	*Area used for crops (a)*	*Area under sown pastures and grasses*	*Balance of area (b)*	*Area*	*Percentage of N.T. land area (134,620,000 hectares)*
				'000 hectares		
1978–79	301	1.6	90.4	76,099.9	76,191.9	56.6
1979–80	346	1.8	99.0	78,066.8	78,167.7	58.1
1980–81	350	1.4	87.1	77,500.4	77,588.7	57.7
1981–82	300	2.0	55.6	77,078.0	77,135.6	57.3
1982–83	287	3.4	43.9	75,202.2	75,249.5	55.9
1983–84p	283	5.0	32.6	71,628.1	71,665.7	53.2

(*a*) Excludes duplication on account of area double cropped. (*b*) Used for grazing, lying idle, fallow, etc.

NORTHERN TERRITORY: AGRICULTURAL STATISTICS

	Unit	*1978–79*	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84p*
Livestock numbers—							
Cattle	'000	1,784.6	1,727.2	1,675.4	1,624.4	1,547.7	1,390.1
Domesticated buffaloes	'000	3.6	3.8	5.5	1.2	n.a.	n.a.
Poultry	'000	200.1	n.a. (*a*)	n.a. (*a*)	n.a. (*a*)	165.8	221.8
Pigs	'000	3.1	2.3	3.2	2.5	2.1	2.8
Gross value of livestock slaughterings and other disposals—							
Cattle and calves	$'000	106,890	121,494	56,852	58,604	63,016	72,724
Poultry	$'000	n.a. (*a*)	n.a. (*a*)	n.a. (*a*)	n.a. (*a*)	n.a. (*a*)	n.a. (*a*)
Pigs	$'000	390	488	523	754	630	599
Gross value of livestock products—							
Dairy products	$'000	72	86	n.a.(*a*)	n.a.(*a*)	n.a.(*a*)	n.a.(*a*)
Eggs	$'000	1,292	1,395	1,757	2,500	2,822	2,822
Crops, Area—							
Sorghum (grain and feed)	Hectares	778	653	850	1,016	2,705	2,610
Hay	Hectares	251	367	8	–	10	284
Tree fruit	Hectares	15	16	15	17	18	412
Bananas	Hectares	12	13	13	19	30	27
Vegetables	Hectares	119	145	110	98	93	193
Pastures and grasses (hay, seed, green feed)	Hectares	2,123	1,693	2,974	5,886	8,247	6,292
Total area used for crops (incl. pastures and grasses)	Hectares	3,697	3,549	4,410	7,867	11,636	11,336
Crops, Production—							
Sorghum for grain	Tonnes	331	1,011	496	818	2,876	5,725
Hay	Tonnes	1,956	1,396	4	–	42	1,150
Bananas	Tonnes	124	101	60	87	82	556
Pastures and grasses (hay, seed)	Tonnes	5,583	3,858	7,212	12,553	5,986	5,491
Gross value of crops—							
Sorghum for grain	$'000	6	104	69	115	426	357
Fruit	$'000	220	85	75	80	58	67
Vegetables	$'000	588	333	297	231	265	319
Pastures and grasses	$'000	164	330	424	718	866	866
Total crops (incl. pastures and grasses)	$'000	1,125	1,083	1,908	2,133	2,294	2,629
Gross value of agriculture	$'000	109,769	124,546	61,041	63,991	68,762	78,774

(*a*) Not available for publication. Excluded from totals.

Mining

The value of mineral output continued its rapid growth of recent years from $437 million in 1980 to $716 million in calendar year 1983. The most important single factor to account for increases in value of production was yellowcake production at Nabarlek and Ranger. Uranium accounts for 44 per cent of the total value of minerals produced in 1983.

The principal mining areas are the Alligator Rivers Region for uranium; Gove Peninsula for bauxite/alumina production, Groote Eylandt for manganese and Tennant Creek for copper and gold.

NORTHERN TERRITORY: MINING ESTABLISHMENTS

		1979–80	*1980–81*	*1981–82*
Establishments operating end of June	No.	13	15	14
Average employment over whole year—persons (*a*)	No.	1,488	1,907	1,773
Wages and salaries	$m	28.1	39.7	37.4
Turnover	$m	189.6	305.5	329.3
Opening stocks at 30 June	$m	19.7	42.0	85.2
Closing stocks at 30 June	$m	38.7	81.7	133.7
Purchases, transfers in and selected expenses	$m	55.0	118.6	85.0
Value added (*b*)	$m	153.6	226.6	292.8
Fixed capital expenditure (*c*)	$m	186.1	194.3	58.8

(*a*) Includes working proprietors. (*b*) Turnover plus increase (or less decrease) in the value of stocks less purchases, transfers in and selected expenses. Commencing with 1978-79, 'rent, leasing and hiring revenue' and 'rent, leasing and hiring expenses' have been included in the calculation of value added and its components 'turnover' and 'purchases, transfers in and selected expenses'. (*c*) Outlay on fixed tangible assets less disposals.

Petroleum and natural gas

Expenditure on offshore and onshore exploration was $45.3m in 1982 and $54.5m in 1983. In September 1983 a 148 km natural gas pipeline from the Palm Valley field to Alice Springs power station was completed. Appraisal testing and drilling took place on the Mereenie oil-field during 1982 and 1983. Production at 1800 BPSD started in September 1984 and a fractionation plant at Alice Springs and oil pipeline to feed it are planned for 1985.

Extensive studies on a gas pipeline from the Amadeus Basin to Darwin for power generation have been undertaken in 1984 and a decision on this project is expected during 1984. Amadeus gas reserves have been significantly upgraded during these studies.

Forestry

Forestry activities in the Northern Territory commenced in 1959 under the Forestry and Timber Bureau; later a State-type service was developed under the Department of the Northern Territory.

In July 1978, with the granting of self-government, forestry became the responsibility of the Territory Parks and Wildlife Commission, now the Conservation Commission of the Northern Territory.

Present activities fall into four main areas: Urban Forestry, Plantation Forestry, Native Forest Management and Conservation.

The Urban Forestry section is aimed at improving the urban environment throughout the Northern Territory through programs of park and street beautification and arid area species testing.

The Plantation Forestry section is predominantly based on plantation establishment on more favourable sites on Melville Island and is ultimately aimed at import replacement. The major species in use is *Pinus caribaea*, though early plantings were largely Cypress pine. A small pressure treatment plant providing treated round timber is operated by the Aborigines on nearby Bathurst Island.

Management of native forest is currently confined to the Murganella area of Arnhem Land where a policy of protection from fire has resulted in extensive regeneration of Cypress pine and native hardwoods, *Eucalyptus tetrodonta* and *E. nesophila*. Current research in this area is aimed at development of sound management prescriptions for treatment of this regeneration.

In its conservation role, the Conservation Commission has given emphasis to fire and ecological studies throughout the Territory together with seed collection, testing and propagation, and gene pool conservation of rare or unique species.

Fishing

After livestock production, fisheries is the second most valuable primary production industry in the Northern Territory. Prawn production, contributing over 85 per cent of the total value, is the major fishery. Barramundi is second, with the remainder mainly threadfin salmon, spanish mackerel, bay lobster, squid, mud crabs and reef fish.

Prawn and Barramundi are heavily fished and measures have been taken to prevent over-exploitation. The Territory Government is encouraging development of under-utilised demersal and pelagic species (mainly fished by foreign vessels), shark, scallops, squid and tuna. Foreign bilateral fishing vessels were allocated a quota of 30,000 tonnes in 1983-84.

The Australian Government is encouraging Australians to participate in fisheries not being utilised and those being exploited by foreign vessels. The recent establishment of an Australian-Taiwanese joint venture having a 2,000 tonnes pelagic fish quota for 1983-84 has been an important progression in the Australianisation of the northern fisheries.

NORTHERN TERRITORY: PRINCIPAL FISHERIES

		1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	*1983–84*
Prawns—							
Estimated gross weight of prawn catch	tonnes	3,749	3,147	4,259	2,986	2,402	2,462
Gross value of prawns	$'000	17,000	14,900	17,067	15,250	15,691	17,587
Fish—							
Estimated live weight of fish catch	tonnes	1,576	1,352	1,634	1,897	1,694	1,667
Gross value of fish	$'000	2,334	1,791	2,267	2,944	2,794	2,897

Secondary industries

The types of secondary industries that have developed in the Northern Territory have been largely based on demand from the local markets, some processing of primary production for exports including the processing of mined ores and beef together with exports in the mining and construction industries.

The isolation of the Northern Territory from the major population areas of Australia and resultant high transportation costs make other than local market expansion difficult.

While industry is limited to local markets, industrial expansion will be small. However determined efforts are being made to take advantage of the proximity of Darwin to the rapidly expanding South East Asian markets. It is envisaged that in the longer term secondary industry will be largely export based.

The following table shows results of the Manufacturing Censuses taken in respect of the years 1980–81 to 1982–83.

NORTHERN TERRITORY: MANUFACTURING ESTABLISHMENTS

	Unit	*1980–81*	*1981–82*	*1982–83*
Establishments at 30 June	No.	98	106	117
Persons employed (*a*)	No.	2,651	2,489	2,434
Wages and salaries	$m	41.6	42.5	45.2
Turnover	$m	292.3	296.9	343.9
Opening stocks at 30 June	$m	48.8	83.1	82.9
Closing stocks at 30 June	$m	83.5	78.2	81.3
Purchases, transfers in and selected expenses	$m	230.6	230.9	251.3
Value added	$m	96.3	61.2	91.0

(*a*) Average over whole year. Includes working proprietors.

Tourism

Tourism is second only to mining as the Territory's most important industry with direct earnings for 1983–84 estimated at $172 million.

A visitor growth rate of 14.6 per cent with visitor expenditure increasing from $85 million in 1977–78 at an average rate of 8.9 per cent to $172 million in 1983–84 continues to encourage investment in tourism facilities.

The Northern Territory Tourist Commission has a head office in Alice Springs and a regional office in Darwin. It operates Government Tourist Bureaux in Adelaide, Hobart, Melbourne, Doncaster, Sydney, Parramatta, Perth, Canberra, Brisbane, Darwin and Alice Springs as well as Bureaux in Los Angeles, Frankfurt, Tokyo, Singapore and London.

Its budget for 1983–84 is $13.7 million.

National parks and reserves

There are 53 parks and reserves, covering abour 5,800 square kilometres, under the care, control and management of the Conservation Commission of the Northern Territory. The Commission's functions include the preservation and protection of natural and historical features and the encouragement of public use and enjoyment of land set aside under its control.

In addition, the Cobourg Peninsula National Park (2,207 square kilometres) is managed by the Cobourg Peninsula Sanctuary Land Trust, and both Uluru (Ayers Rock—Mt. Olga) and Kakadu National Parks (15,923 square kilometres) are managed by the Australian National Parks and Wildlife Service.

Transport and communication

Railways

Passenger and freight train services commenced in December 1980 over the then new 831 km standard gauge Tarcoola—Alice Springs railway. Direct services from Sydney to Alice Springs commenced in 1984.

Roads

The Stuart Highway is the principal north-south axis route for the Northern Territory connecting Alice Springs, Katherine, Tennant Creek and Darwin to Adelaide. The section Darwin—Alice Springs is 1,486 kilometres long and sealed over its full length. The section south of Alice Springs is sealed to the South Australian border, a distance of 293 kilometres.

The Barkly Highway is the principal route to and from Queensland via Mount Isa. It is 648 kilometres long and is sealed. Running approximately east-west, it connects to the Stuart Highway some 26 kilometres north of Tennant Creek.

The Victoria Highway, the principal access route to and from Western Australia via Kununurra, is 467 kilometres long and is sealed.

These highways are used to carry a variety of freight, including cattle, particularly between the railheads at Mount Isa and Alice Springs. They provide access to meatworks at Wyndham (Western Australia), Cloncurry (Queensland) and Katherine. In addition, they play a particularly important part in the Northern Territory economy through their association with the tourist industry.

The first program for upgrading the Stuart and Barkly Highways is complete, while the second program is nearing completion. Future works will be an ongoing program to bring these roads to National Highway Standards.

Shipping

Shipping services to Darwin are provided from Western Australia by Stateships using two multi-purpose, roll on-roll off vessels (Pilbara and Koolinda). Both services are on a fortnightly basis. Tankers from Australian and overseas ports deliver oil products to Darwin. General cargo vessels from overseas ports also visit Darwin. The prawning and fishing industry accounts for a significant portion of the shipping entries into the port.

A regular shipping service which serves Aboriginal communities as well as the mining centres of Melville Bay (Gove) and Milner Bay (Groote Eylandt) operates from Brisbane to the Gulf of Carpentaria ports. Bulk carriers load ore and other mining products for delivery to ports in Australia and overseas.

Two Darwin-based companies operate landing craft to Aboriginal communities and ports along the coast. The vessel, Frances Bay, is involved in overseas trade from Darwin to Singapore and other South East Asian ports.

Air services

At 1 September 1983 there were 88 licensed aerodromes plus 4 Commonwealth controlled airports in the Territory. Qantas operates a weekly international service from Darwin to Singapore whilst Garuda Indonesian Airways provides a twice weekly service to Den Pasar (Bali). Regular services to Darwin with intermediate stops at some Territory centres are operated by Trans Australian Airlines and Ansett Airlines of Australia from mainland capital cities and by Airlines of Western Australia from Western Australia. Airlines of Northern Australia commenced operations in 1981 and provide a network to all major Territory centres. The Northern Territory Aerial Medical Service has aircraft based at Darwin and Gove while the Royal Flying Doctor Service operates from Alice Springs. Regular commuter services operate from Darwin, Katherine and Alice Springs to outlying centres. Charter services are available at Darwin, Alice Springs, Gove, Groote Eylandt, Katherine, Tennant Creek, Ayers Rock and Jabiru. Responsibility for the economic licensing of domestic operations passed from the Commonwealth to the Northern Territory Government on 1 June 1980. The Commonwealth Government retains responsibility for safety and operational aspects and works closely with Territory authorities in the licensing of commercial operations within the Territory.

Several organisations provide helicopter services particularly for cattle mustering and aerial survey. In 1981 heavy helicopter activity from Darwin increased in support of offshore drilling rigs involved in oil and gas exploration.

Civil aircraft under contracts to the Department of Transport, Australia, operate on extensive coastal surveillance operation from Darwin.

Post, telegraph, telephone, radio and television

Postal communication is maintained by daily air transport between major Northern Territory centres and the capital cities of Australia. Large centres receive surface mails by two major road mail services operating from Queensland and South Australia. More remote centres are served by aerial services. Direct mail despatches are exchanged between Darwin and several overseas countries.

Trunk telephone links to Darwin extend from Townsville via a broadband microwave radio relay system, and from Adelaide via systems operated over leased circuits on the NAR Tarcoola-Alice Springs microwave link. These systems also carry telegraph and data traffic and serve towns along the routes. Subscriber trunk dialling facilities were introduced to Darwin, Nhulunbuy (Gove Peninsula) in 1974 and to Katherine in 1975. ISD (International Subscriber Dialling) was introduced to telephone exchanges in the Darwin area and to Katherine and Nhulunbuy in December 1976. Tennant Creek and Elliott telephone services were connected to automatic with subscriber trunk dialling facilities during 1979.

Completion of Australia's first solar-powered broadband microwave relay system between Tennant Creek and Alice Springs in October 1979 brought subscriber trunk dialling and ISD facilities to Alice Springs. It also provides live television programs to the National Television Service transmitter at Alice Springs.

The automatic conversion program in the Northern Territory is now complete and all services are provided with direct dialling facilities and access to STD. High frequency radio telephone exchanges at Katherine and Alice Springs provide connections to the telephone network for some of the remote properties in the Northern Territory. The majority of homesteads on pastoral leases are equipped with radio transceivers operating through the Royal Flying Doctor base at Alice Springs or the Telecom Australia Outpost Radio base in Darwin which provide a message passing and emergency communications service. A number of homesteads and settlements adjacent to the Darwin-Isa and Tennant Creek-Alice Springs microwave corridors are provided with VHF radio telephone giving 24 hour service with STD facilities.

Telecom's major thrust in the Northern Territory is an extension of the network to outback areas, scheduled for completion by 1990. During 1984 automatic telephone exchanges were installed at Yulara and Groote Eylandt complete with STD and ISD access. Utilisation of new technology such as the Australian-developed Digital Radio concentrator system and the domestic satellite will bring world standard telephone service to all customers, however isolated.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek, Katherine, Jabiru and Gove. Darwin is also served by a national broadcasting ABC-FM station. Commercial broadcasting stations are located at Darwin, with a translator to serve Katherine, and at Alice Springs. Two television stations, ABD Channel 6 of the national broadcasting system and commercial station NTD Channel 8 operate in Darwin. The Darwin ABD 6 program is also broadcast in Katherine (ABKN 7) and Tennant Creek (ABTD 9) with translators serving Adelaide River, Bathurst Island, Mataranka, Newcastle Waters/Elliott and Warrego Mine. Alice Springs is served by national television station, ABAD Channel 7. Remote area television is provided via satellite earth stations at Borroloola, Daly River, Galiwinku, Groote Eylandt, Jabiru, Nhulunbuy and Yirrkala.

Education

See also Chapter 12, Education.

Responsibility for education in the Northern Territory was transferred from the Commonwealth Department of Education to the Northern Territory Government on 1 July 1979.

Since that date education services have been provided by the Northern Territory Department of Education.

Details of the responsibilities are outlined in the *Northern Territory of Australia Education Act 1979*. Under the Act, the Minister for Education is responsible for the general administration and control of education services. The Act states that the Minister may take all measures which, in his opinion, are necessary or desirable to assist parents of children in the Territory in fulfilling the responsibility to educate their children according to the individual needs and abilities of those children; to make education services, provided by him, available to all people in the Territory; and to assist all people of the Territory with their own education. The Act also provides for the establishment of Advisory Councils.

Schools in the Northern Territory

At 1 June 1984 there were 157 schools in the Northern Territory with a total school population of 33,169. Of that number 3,870 attended 12 private schools and 1,208 attended mission schools. Approximately 10,108 students were of Aboriginal descent. In addition to primary and pre-schools, there are 10 government high schools, one secondary correspondence school and three private high schools. There are three area schools offering secondary courses and two residential colleges for Aboriginal students. There are also 17 government schools in Aboriginal communities that offer post-primary courses and six mission schools with post-primary programs.

Teaching staff are provided by the Northern Territory Teaching Service and qualified applicants are recruited from all parts of Australia.

With the exception of Year 12 level, where most students are assessed by the Senior Secondary Assessment Board of South Australia, all aspects of curriculum, course accreditation and student assessment are the responsibility of the Northern Territory Board of Studies, with subject area committees in Language, Mathematics, Science, Computer Education, Social and Cultural Education, The Arts, Health and Physical Education and Life/Work Skills. Apart from Life/Work Skills, which is concerned with secondary education only, all committees span primary and secondary education from Transition to Year 12.

Subject area committees define the core of essential skills and understandings in which all students should gain competence and the educational experiences which they should have during their primary and junior secondary schooling. They also identify or develop the recommended curricula, which consists of those courses and materials which are regarded as the best available to schools to assist in achieving the objectives specified in the core, as well as skills, understandings, content and experiences considered appropriate for extension beyond the core.

In addition to curriculum development, subject area committees provide for teachers guidelines on the assessment of student performance, examples of assessment instruments and, in some subjects, moderation of student assessment. The Junior and Senior Secondary Studies Certificates are issued by the Northern Territory Board of Studies at Year 10 and Senior levels respectively.

The work of subject area committees is co-ordinated and supplemented by curriculum officers at central and regional levels and by a range of educational services.

The two Schools of the Air in the Northern Territory, one at Katherine and one at Alice Springs, have developed individual programs and provide correspondence and radio lessons for students in the years One to Seven. One correspondence school caters for isolated secondary students. Aerial and road patrols are carried out regularly to provide teacher/student and parent contact.

Special schools are located in Alice Springs and Darwin for handicapped children. However, where appropriate, students with special needs are integrated into primary and secondary schools. Guidance and Special Education Advisory services operate from the two Regional Offices in Alice Springs and Darwin.

A program of exchange between Indonesia and the Northern Territory is continuing in which up to two teachers from each country are exchanged for a school year, and four senior students spend up to six months in each country. The Northern Territory have also sponsored a group of junior high school students and teachers from Bali on a two-week educational visit to the Territory each year.

Aboriginal education

Most Northern Territory Aboriginals live away from town centres and their education is provided in various settings including mission schools, government schools on or near Settlements or Aboriginal townships, on pastoral properties and outstations or homeland centres.

There has been an increasing number of requests from outstations for the Department of Education to provide assistance. A small group of teachers is currently working in this field and developing special methods and modified courses to help overcome the difficulties faced by isolated outstation groups in their quest for education.

Government schools for Aboriginal children in out-of-town centres provide tuition at pre-school and primary school level with a number of them providing post primary (secondary age) classes as well.

For Aboriginal children who wish to proceed to secondary schools there are now two residential colleges: Yirara and Kormilda. These colleges are regionally based but situated near urban centres, Yirara at Alice Springs and Kormilda in Darwin. They provide secondary age students from outlying centres with the opportunity to undertake a range of courses internally or to attend an urban high school.

Bilingual education programs in Northern Territory schools in Aboriginal communities have attracted wide interest from within Australia and overseas. There are 16 schools offering bilingual programs to 3,500 students. Six further programs are under consideration. Many other schools include Aboriginal language and culture in the curriculum. Twelve languages are now being used in the program and 6 further languages are under consideration. Many school children are acquiring initial literacy skills in their own language. Although a large proportion of the curriculum is devoted to instruction in an Aboriginal language, a structured English course forms an integral part of the bilingual program. Other aspects of Aboriginal education are covered in the TAFE section.

Darwin Community College

The College was opened in 1974 and is an autonomous, multi-purpose institution. It has Schools of Business and Administration, General Studies, Creative and Applied Art, Technology and Science, Trades, and Australian Linguistics. As well as courses at Advanced Education and TAFE levels leading to awards, the College provides a wide range of non-award recreational classes. It provides examination facilities and some tutorial assistance to external students in the N.T. studying at other Australian institutions, through the N.T. External Studies Centre at the Casuarina Campus. The College is divided into three campuses: the main one at Casuarina; the School of Australian Linguistics at Batchelor; and an annexe of the Division of Extension Services at Nhulunbuy. Annual enrolment is 7,500.

Vocational Training

The N.T. Industries Training Commission after amendment to legislation in December 1982, which came into effect in February 1983, is now known as the N.T. Vocational Training Commission. The amendment also transferred the formulation of policy and planning for technical and further education from the Department of Education to the Commission.

The Commission has a tripartite membership of employer, employee and Government representation. Functions include manpower planning, labour market research, supervision and development of apprentice training courses, co-ordination of and policy and planning for technical and further education, accreditation of technical and further education courses, policy and planning for Aboriginal employment and training, industry liaison and promotion of industry training.

Technical and Further Education

Aboriginal Adult Education. Most large Aboriginal communities have an Adult Educator who relates to adults in the community and arranges non-formal programs which he or local part-time instructors and visiting lecturers teach.

Communities are developing more confidence in the management of their own affairs. There is thus a growing demand for Adult Education requiring a co-ordinated effort on the part of all agencies offering Adult Education services.

Community College of Central Australia. Prior to 1 July 1979, this college was a campus of Darwin Community College. It offers electrical and aircraft engineering licences, apprenticeship, business, secretarial, tourism, hospitality, Aboriginal development, technology, art, matriculation and preparatory studies, non-credit refresher, recreational and general education courses and a tutorial program for degrees, diplomas and certificates from Warrnambool Institute of Advanced Education, Darwin Community College and the South Australian Department of Technical and Further Education.

Katherine Rural College began teaching in 1979 and is residential. It offers a one year and a two year full-time Certificate course in Rural Studies and short courses such as power saw maintenance, water conservation and use, helicopter mustering and horse shoeing.

Batchelor College is a residential institution providing programs for Aboriginal people leading to teacher education qualifications at advanced education and TAFE levels.

Adult Migrant Education Centre supersedes Adult Migrant Education Service courses and provides courses for on-arrival migrants and adult migrants preparing to enter the work force.

Health

At the start of 1979 the Northern Territory Government assumed responsibility for the provision of the Territory's health services from the Commonwealth.

Hospitals are located at Darwin, Alice Springs, Katherine, Tennant Creek and Gove.

Schools of general and midwifery nursing are operated at Royal Darwin Hospital whilst a training school for enrolled nurses is conducted at Alice Springs Hospital.

In the urban areas of Darwin, Katherine, Tennant Creek, Alice Springs and Gove, community health centres have been established to provide a full range of community and public health services. A number of rural health centres have also been established in smaller communities, providing a range of services appropriate to the size and nature of the community concerned.

Dental clinics are located in the main urban centres and are progressively being extended to the smaller communities. Rural areas are serviced regularly by mobile teams from the urban centres. The school dental service now covers all pre school and primary school children in urban areas and is being extended to rural areas by inclusion of School Dental Therapists in mobile teams and the increasing involvement of Aboriginal Health Workers in the program. An oral health program has been established at secondary schools to complement the primary schools service.

The Air Medical Service operates in all areas of the Northern Territory using a combination of charter, and commercially scheduled services, Royal Flying Doctor Service, and Government owned Nomad aircraft.

Health services to Aboriginal communities are provided by departmental staff, doctors, nurses and Aboriginal Health Workers either directly employed by the Department of Health or through Grants-in-Aid.

The training of Aboriginal Health Workers is carried out at the Katherine Institute for Aboriginal Health and training schools in Gove and Alice Springs. Both basic and post basic modules in Aboriginal Health Worker training are now available.

Extended Care Services encompasses all of the health services that are required by the aged and the disabled of all ages. It incorporates Geriatric Medicine, Rehabilitation, and aspects of the Community Health Program. This service serves the population of a defined geographical area and is one of the components of an Area Health Service.

A public health service is provided throughout the Territory by Health Inspectors located in the major urban areas who make regular visits to outlying areas.

The Northern Territory Drug and Alcohol Bureau services the Northern Territory Drug and Alcohol Advisory Committee and its associated regional drug and alcohol groups. The Bureau co-ordinates the activities of the many Government and non-Government organisations which have a role in the control of drug and alcohol problems in the Northern Territory, making policy recommendations to these bodies.

Other services provided are the conduct of drug education programs and a program of mosquito control and research aimed at prevention of outbreaks of Australian Encephalitis. Both of these activities are subsidised by the Commonwealth Government.

Finance

The following table gives details of government receipts and outlays that have been identified as relating specifically to the performance of local or State-type functions in the Northern Territory for 1980–81 and 1981–82. Receipts collected in the Northern Territory from Australia-wide sources (e.g. income taxes, customs duties, etc.) and outlays in the Northern Territory on items of a national character (e.g. defence, civil aviation and cash benefits paid to Northern Territory residents as part of national programs) are *not* included.

In addition to transactions relating to the Northern Territory in the Consolidated Revenue Fund and certain trust funds the transactions of the following public corporations are included: Northern Territory Port Authority, Northern Territory Housing Commission, Northern Territory Electricity Commission, Jabiru Town Development Authority, Corporation of the City of Darwin, Corporation of the Municipality of Alice Springs, Corporation of the Municipality of Katherine and Corporation of the Municipality of Tennant Creek.

NORTHERN TERRITORY: OUTLAY AND RECEIPTS

($'000)

	1979–80	*1980–81*	*1981–82*
OUTLAY			
Final consumption expenditure—			
Law, order and public safety	34,128	40,232	47,458
Education	71,285	85,935	100,611
Health	59,146	72,144	76,229
Social security and welfare	12,749	26,040	28,138
Other	106,500	137,715	178,612
Gross fixed capital expenditure on new assets and stocks—			
Education	13,377	11,478	17,815
Roads	50,178	54,236	55,120
Housing and regional development	22,467	33,838	45,484
Health	9,892	3,145	2,917
Social security and welfare	195	532	126
Electricity, gas and water	47,624	19,545	25,383
Other	40,550	49,702	37,410
Net purchase of existing assets	−10,115	16,806	10,070
Interest paid	13,521	24,997	34,945
Cash benefits	451	629	801
Subsidies	55	366	1,965
Net advances to the private sector—			
Housing and community amenities	26,144	48,518	50,869
Other	−1,069	−589	−809
Grants for private capital purposes	696	570	640
Advances to public financial enterprises	—	—	—
Total outlay	**497,774**	**625,839**	**713,784**
RECEIPTS			
Taxation—			
Payroll tax	15,209	17,169	18,307
Rates on land	5,622	6,353	7,891
Stamp duties	3,064	4,304	6,232
Motor registration	3,098	3,057	3,798
Other taxes, fees, fines, etc.	4,799	7,041	9,649
Interest, rent, etc.	15,132	25,412	28,037
Income from public enterprises	−23,076	−41,645	−44,864
Net sale of local authority and public corporation securities	32,212	34,245	35,172
Other receipts	−3,473	12,788	20,999
Commonwealth Government grants and advances	445,190	557,115	628,563
Total receipts	**497,777**	**625,839**	**713,784**

THE AUSTRALIAN CAPITAL TERRITORY

General description

The Constitution provides that the Seat of Government of the Commonwealth of Australia shall be in the State of New South Wales but distant not less than 160 kilometres from Sydney. After a number of alternative sites were considered, an area of 2,359 square kilometres lying approximately 320 kilometres south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 73 square kilometres at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility for administering the Australian Capital Territory lies with the Department of Territories and Local Government, whose functions include the leasing and management of land, housing, public transport, forestry and municipal services. Education, public health and justice are the responsibilities of the Department of Education, the Capital Territory Health Commission and the Attorney-General's Department respectively. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

In 1974, the A.C.T. Advisory Council, which had been in existence since 1930, was replaced by the A.C.T. Legislative Assembly. The first Assembly was elected on 28 September 1974 and held its first meeting on 28 October 1974.

During 1979, the name of the A.C.T. Legislative Assembly was changed to the A.C.T. House of Assembly. The first election for the House of Assembly was held on 2 June 1979 and first meeting of the House of Assembly was held on 29 June. The Assembly is established by the *House of Assembly Ordinance 1936* which defines its role as follows:

'The Assembly may advise the Minister (for Territories and Local Government) in relation to any matter affecting the Territory including the making of new Ordinances or the repeal or amendment of existing Ordinances.'

The Assembly consists of 18 Members (9 from each of the electoral divisions of Canberra and Fraser) and its procedure is modelled on that of the House of Representatives. Its Members serve on a part-time basis.

The Assembly normally considers (and sometimes introduces) Ordinances which are proposed for the Territory. It also passes resolutions on matters affecting the Territory. It is represented on a number of boards, authorities and committees such as the Canberra Commercial Development Authority, the A.C.T. Electricity Authority, the A.C.T. Schools Authority, the Gaming and Liquor Authority, the Consumer Affairs Council and the Australian Constitutional Convention.

At 30 June 1983, the population of the Australian Capital Territory was 234,900. *See also* Chapter 6, Demography.

Works and services

Housing

The role of the Department of Territories and Local Government in the area of housing has changed significantly since 1930 when, as the Department of the Interior, it offered rental accommodation to all public servants in Canberra. The proportion of houses and flats in the Australian Capital Territory occupied by tenants of the Department of Territories and Local Government has fallen steadily from 79.7 per cent of total occupied houses and flats in 1954 to 58.3 per cent in 1961, 38.8 per cent in 1966, 28.1 per cent in 1971, 13.3 per cent in 1981 and 10 per cent in 1983; and then risen again to 13 per cent in 1984.

Although there has been a considerable increase in the proportion of home ownership in the Australian Capital Territory since 1954, the demand for public housing has continued to increase. At June 1979 there were 363 persons on the waiting list for public housing. There were 1,238 in 1980; 2,126 in 1981; 1,554 in 1982; 1,757 in 1983; and 2,141 in 1984. Housing resources have not been able to keep pace with the demand; therefore the allocation of rental accommodation and housing finance is now restricted on a means tested basis.

The *Department of Territories and Local Government* in conjunction with the National Capital Development Commission has endeavoured to expand public housing stock through annual building programs. In 1983-84 500 dwellings were commenced and it is expected that 650 dwellings will be commenced in 1984-85.

Both private and public home building activity has continued to expand in the Australian Capital Territory, especially in the area of Tuggeranong. At June 1984 there were 19,431 occupied dwellings in the Woden Valley and Weston Creek area, 23,052 in the Belconnen area, and 12,292 in the Tuggeranong area. The total number of occupied dwellings in the Australian Capital Territory at June 1984 was 77,017.

See also Chapter 19, Housing and Construction.

Municipal services

Since its establishment, Canberra has been developed as a garden city. City Parks Administration of the Department of Territories and Local Government manages urban parklands, gardens, sportsgrounds and rural picnic areas. The total area managed increased by approximately 280 hectares (ha) to 8,280 ha in 1983-84.

The Yarralumla Nursery, established in 1913, propagates trees and shrubs for use in development projects and as replacements in landscape maintenance. Plant production during 1982-83 decreased because of drought conditions by 10,000 plants to 250,000.

The Horticultural Services Unit provides horticultural advice and trials turf grasses, trees, shrubs and new products and techniques for application in the Canberra environment.

Production

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Australian Capital Territory and to the area of alienated and leased land. The Agricultural Industry chapter in this Year Book contains statistical information on these subjects.

With minor exceptions the freehold estate of land in the Australian Capital Territory has been acquired by, and is vested in the Crown. The *Seat of Government* (*Administration*) *Act 1910* prevents the sale or disposal of such Crown land for any estate in freehold except in the case of a contract that preceded the Act. Progressively the remaining areas of freehold land are being acquired.

Leases of land for residential, commercial and other purposes in the city area are usually granted under the *City Area Leases Ordinance 1936*. Some special leases for other purposes (such as diplomatic sites or churches) are granted under the *Leases* (*Special Purposes*) *Ordinance 1925* or the *Church Lands Leases Ordinance 1924* or the *Leases Ordinance 1918* if for a short term or experimental land use. Some areas outside the city area not immediately required for the development of the City or for other public purposes or where there is no intention of development are leased for agriculture or grazing under the *Leases Ordinance 1918*. Under the *A.C.T. Nature Conservation Ordinance 1980*, 94,000 ha have been gazetted as Namadgi National Park.

The Commonwealth Territory at Jervis Bay, comprising about 7,360 ha, was acquired from New South Wales for the possible provision of port facilities in connection with the Australian Capital Territory. A portion of the area is occupied by the Royal Australian Naval College (*H.M.A.S. Creswell*) and a Royal Australian Navy airfield. Several blocks fronting Sussex Inlet plus an area on Bowen Island have been leased for guest houses and holiday camps, etc., under the *Leases Ordinance 1918*, and an area of land in the Murray's Beach area has been set aside for possible use as an atomic power station under the control of the Australian Atomic Energy Commission. An Aboriginal community is located at Wreck Bay. Approximately two thirds of the Territory is declared a Nature Reserve under the *Public Parks Ordinance 1928*. The reserved area and adjacent land managed in sympathy with the Reserve includes picnic and camping areas, afforestation and soil conservation activities and an annex to the National Botanic Gardens.

Forestry

Forestry field operations in the Australian Capital Territory began in 1915 with the planting of pines on the denuded slopes of Mount Stromlo to arrest soil erosion and improve visual quality of the landscape. In 1926, a program for development of commercial forests was approved following a comprehensive review of the Territory's potential for forest development. Major reviews of this program were made in 1932, 1954, 1967 and 1983, always, however, retaining the basic policy of systematic conservation and development. Forestry operations including fire protection treatment were extended to some 44,500 ha of natural forest in the Cotter catchment and adjacent areas. The more productive stands in these areas were harvested extensively to provide timber for Canberra's post-war expansion and were subsequently treated to promote regeneration and protect the quality of water harvested.

The policy of forest management in the Australian Capital Territory has been formulated to cater not only for commercial timber production but also to provide recreation facilities and an attractive visual environment for the national capital and to protect the water supply.

The forest authority is charged with the management of some 46,000 ha of land in the Australian Capital Territory. Of this, some 18,000 ha carry native forest or woodland. As at 30 June 1984, the total area of coniferous plantations in the Australian Capital Territory and Jervis Bay was 15,600 ha nett. Of 220 ha at Jervis Bay, the majority consisted of *Pinus radiata* (Monterey Pine) and *Pinus elliottii* (Slash Pine). The plantations in the Australian Capital Territory consisted mainly of *Pinus radiata* and *Pinus ponderosa* (Yellow Pine). Total area of *Pinus radiata* was 14,600 ha.

In 1983-84 there was no commercial production of hardwood timber from the Australian Capital Territory and Jervis Bay. The volume of softwood cut was 177,000 cubic metres. The total value of this unprocessed timber unloaded at the mill (milldoor value) was $6.04 million.

Agricultural and secondary industries

Since 1974-75 the number of agricultural establishments in the Australian Capital Territory has fallen from 142 to 95. In 1982-83 small amounts of wheat and oats for grain were grown and over 6,000 tonnes of meat (carcass weight) produced. Livestock numbers at 31 March 1983 included 10,168 cattle and 104,167 sheep.

Secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory.

AUSTRALIAN CAPITAL TERRITORY: MANUFACTURING ESTABLISHMENTS—1979–80 to 1981–82

	Unit	*1979–80*	*1980–81*	1981–82
Establishments operating during year	No.	112	117	126
Persons employed (*a*)	No.	3,132	3,316	3,451
Wages and salaries	$m	37.2	44.9	49.4
Turnover	$m	127.2	162.9	187.7
Opening stocks at 30 June	$m	11.4	13.5	14.4
Closing stocks at 30 June	$m	12.6	16.7	16.8
Purchases, transfers in and selected expenses	$m	64.0	89.3	111.7
Value added	$m	64.4	76.8	78.4

(*a*) Average over whole year. Includes working proprietors.

Commercial practices

The Consumer Affairs Bureau receives and investigates complaints from consumers about unfair commercial practices, conducts research into matters affecting consumer interests and provides information of benefit to consumers. The Bureau also provides advice to both landlords and tenants in relation to residential tenancies.

The Weights and Measures Office maintains the standards of mass, length and volume for the A.C.T. It periodically examines all scales and measures used for trade, and checks the weight or measures of packaged goods sold in retail premises. The Office also receives and investigates consumers' complaints in relation to weights and measures problems.

In the A.C.T. licensing is used as a means of regulating some commercial practices by establishing minimum standards of qualifications and/or experience for entry into certain occupations. These include motor vehicle agents; pawnbrokers and secondhand dealers. Licensing is also used in relation to the activities of all racing codes in the Territory.

The *Co-operative Societies Ordinance 1939* provides for the incorporation of building societies, housing and service societies and credit unions. The Registrar is responsible for the incorporation of new societies, the registration of documents, inspections and inquiries into the working and financial situation of societies and the hearing and determination of certain disputes between a society and a member.

In Canberra there are two retail fruit and vegetable markets. These have been established, operated and controlled by the Canberra Retail Markets Trust. The establishment of a third market in the Tuggeranong Valley is being considered.

Transport and communication

The Department of Territories and Local Government is responsible for the regulation of transport and traffic under an A.C.T. Ordinance. ACTION, the Australian Capital Territory Internal Omnibus Network, is also operated by the Department of Territories and Local Government. It operated 377 buses in 1983-84 over 112 routes covering 1,275 kilometres. A total of 15,492,810 kilometres was travelled and 22,874,662 passenger journeys made.

There are six radio broadcasting stations currently in the Territory with the possibility of one new commercial licence and one community licence being granted in the near future: 2CY, 2CN and ABC-FM of the national broadcasting system; two commercial stations, 2CA and 2CC; and one community station, 2XX. There are three television stations, ABC Channel 3 of the national broadcasting system; Channel 0-28 of the Special Broadcasting Service and Australian Capital Television Pty Ltd (Capital 7), a Canberra based commercial station.

Social

See also Chapter 10, Health; Chapter 11, Law and Order; and Chapter 12, Education.

Schools

The *Education Ordinance 1937* provides for the compulsory attendance at school of children between the ages of six and fifteen years. Government schools are administered by the A.C.T. Schools Authority, which became a Statutory body in January 1977. The Authority is representative of teachers, parents and the community. The A.C.T. Schools Accrediting Agency within the Authority system accredits courses and administers student assessment procedures for Years 11 and 12. These procedures replaced the New South Wales Higher School Certificate examination at the end of 1976.

In July 1984 there were seventeen government high schools in the Australian Capital Territory, and eight secondary colleges. High schools cater for Years 7 to 10 and secondary colleges for Years 11 and 12. Secondary students enrolled numbered 17,094.

Sixty-four schools provide courses at primary levels, three of these being in rural districts and one in the Jervis Bay area. The number of pupils enrolled in government primary schools at July 1984 was 22,428.

There are four government special schools in the A.C.T. with a total enrolment of 328 students. These schools cater for pre-school, primary and secondary school aged students who are physically or intellectually handicapped. There are two other Special Facility Establishments in the A.C.T., one providing schooling for hospitalised students, one catering for severely or profoundly intellectually handicapped students. The total enrolment at these facilities was 28 at July 1984. Mildly intellectually handicapped children are served by learning centres attached to nine primary schools and three high schools.

Special units for deaf children are available to three schools, blind children also receive specialised support. Children below school age with learning, sight or hearing problems receive assistance from specially-trained staff at pre-schools and in their homes.

Eleven primary schools cater for children of junior primary age who are unable to adjust to a normal class situation. One school caters for children with language and communication disorders. Educational guidance services are provided by two Education Clinics and through counselling staff attached to schools.

Special English classes for migrant children are available at fifty-three primary schools, sixteen high schools and seven secondary colleges. Three Introductory English Centres (two for primary, one for secondary aged pupils) cater for migrant children with little or no English. They attend for up to six months and then return to their neighbourhood school or college.

The seventy-three pre-schools provide facilities for 4,670 children between the ages of three and five years. Provision is made at all pre-schools for the additional enrolment of children who have minimal problems such as speech, behavioural and family problems.

In July 1984 there were twenty-two non-government primary schools in Canberra, eight schools offering both primary and secondary schooling and five schools with secondary grades only. There were 10,311 pupils enrolled in primary grades at non-government schools and 8,758 in the secondary grades at these schools.

A.C.T. Further Education

The Office of A.C.T. Further Education, which operates within the structure of the Department of Education and Youth Affairs, is responsible for the Technical and Further Education Colleges, the Canberra School of Art and the Canberra School of Music. The Office is also responsible for the A.C.T. Apprenticeship Board and for the co-ordination of the provision of Adult Migrant Education.

There are presently three TAFE Colleges in the A.C.T.: Canberra, Bruce and Woden. These Colleges provide trade, post trade, certificate, associate diploma, craft and leisure type courses at their main campuses and at several annexes. In the year ended 31 December 1983 there were 25,293 enrolments in A.C.T. TAFE Colleges.

The Canberra School of Art offers a Diploma of Arts (Visual), three years full-time study or part-time equivalent; an Associate Diploma of Arts (Visual), two years full-time study or part-time equivalent; and a Postgraduate Diploma, one year full-time study. It also provides art courses for students from the Canberra College of Advanced Education as well as non-vocational classes for the community in general. In the year ended 31 December 1983 there was 1,161 enrolments at the School.

The Canberra School of Music offers a Bachelor of Music, four years full-time study, and a Diploma of Music, three years full-time study. Courses for Canberra College of Advanced Education students and single study classes for part-time students are also offered. In the year ended 31 December 1983 there were 736 enrolments at the School.

It should be noted that enrolment figures here are course enrolments and are not adjusted for those students enrolled in more than one course at any time.

Other Tertiary Educational Institutions

The Canberra College of Advanced Education is administered by a governing Council constituted under an Act of Parliament and offers courses in six schools—Administrative Studies, Applied Science, Liberal Studies, Education, Information Sciences and Environmental Design. Courses have a professional or vocational orientation and lead to master and bachelor degrees, and associate and graduate diplomas. There were 5,129 students enrolled as at August 1984.

The Australian National University was established by an Act of Parliament and is administered by its governing Council. The Institute of Advanced Studies within the University is a centre for research and training in research. It includes the John Curtin School of Medical Research and Research Schools of Physical Sciences, Social Sciences, Pacific Studies, Chemistry, Biological Sciences and Earth Sciences. The faculties carry out both undergraduate and post-graduate training and research and are composed of the faculties of Arts, Asian Studies, Economics and Commerce, Law and Science. The total student enrolment as at August 1984 was 6,194.

The University has established the following centres: Centre for Resource and Environmental Studies; Humanities Research Centre; North Australia Research Unit (based in Darwin); Centre for Continuing Education; Peace Research Centre; Office for Research in Academic Methods; and the National Health and Medical Research Council Social Psychiatry Research Unit and Health Economics Research Unit.

Continuing education

The Centre for Continuing Education, which is run by the Australian National University, is intended to foster 'the learning society' by enriching the contacts between the university and the community to their mutual advantage. The Centre offers a wide range of courses in the natural and social sciences and the humanities.

Evening classes in the A.C.T. are provided at two high schools and four secondary colleges as a continuing education service by the A.C.T. Schools Authority. Enrolments in evening classes in July 1984 numbered 2,786, of which 1,488 were enrolled in recreational classes. Evening classes offer courses leading to the award of a certificate of entry to post-secondary and tertiary institutions as well as a variety of craft and cultural courses.

Apprenticeship training

The A.C.T. Apprenticeship Board, a Statutory Authority, is responsible for supervision over the practical and theoretical training of apprentices in the Australian Capital Territory.

At 30 June 1984, 1,239 indentured apprentices were in training in 54 declared apprenticeship trades in the Australian Capital Territory. They were employed by about 750 employers who had been approved to train. During 1983-84 the Board received 1,107 applications for apprenticeship.

New indentures totalling 480 were registered, an increase of 4.1% over new indentures for 1982-83. 347 apprenticeships were completed and 187 cancelled.

Adult migrant education

The Office of A.C.T. Further Education, on behalf of the Department of Immigration and Ethnic Affairs, is responsible for the Adult Migrant Education Program in the A.C.T. All classes are free and they are open to migrants who are permanent residents of Australia.

The language program is organised in two strands, an on-going strand for migrants who have been in Australia for some time and an on-arrival strand for newly arrived migrants. As part of the on-going program part-time classes are offered at different levels and at various times in the day and evening. A more intensive part-time course, aimed primarily at unemployed migrants whose lack of proficiency in the English language is prejudicing their employment prospects, is available as is a full-time accelerated English course lasting ten weeks.

As well, English classes are provided in the work place either partly or wholly within working hours. Migrants who are unable to attend classes may undertake a correspondence course, or have a tutor visit them in their own homes.

The on-arrival strand of the program caters for migrants who have arrived in Australia within the previous twelve months. The courses offered provide an introduction to Australian society and way of life as well as a basic English language instruction. On completion, students are encouraged to enrol in part-time classes.

All migrants attending full-time courses are eligible to receive a living allowance subject to a means test.

Employment Advisory Committee

The Government established an Employment Advisory Committee in September 1983 to advise the Minister on A.C.T. employment issues and to recommend employment creation proposals to be funded under the CEP.

Community Employment Program (CEP)

During 1983-84 the CEP provided funds of $6.45m for job creation in the A.C.T. A further amount of $3.28m was provided from contributions by the Department of Territories and Local Government and by project sponsors. In the community sector 100 projects were recommended to create 219 job opportunities. In the Territorial sector 47 projects were recommended and 337 jobs created. The average duration of these jobs is 45 weeks—the longest in Australia.

Tourism

Tourism is important to the A.C.T. economy and in the planning and development of the Capital. The number of visitors per annum now exceeds 3 million and their expenditure in the Territory and Queanbeyan $200 million. It is estimated tourism sustains employment for 7,000 people in the district.

The official tourist servicing and promotional operation in the A.C.T. is provided by the Department of Territories and Local Government through the Canberra Tourist Bureau. Planning and development of physical facilities remain the responsibility of the National Capital Development Commission.

The Bureau operates a highway reception and information centre on the northern (main) gateway to the city, and branch offices in Sydney and Melbourne. Total operational costs, including salaries and overtime, will approximate $1,720,000 in 1984–85.

Tourist features in the A.C.T. most partronised are the Australian War Memorial, the Black Mountain Telecommunication Tower, the High Court of Australia, Parliament House, the National Library, the Australian National Gallery, the Royal Australian Mint, and the mountain lookouts and reserves.

The most important attraction under construction is the new and permanent Parliament House. The endpapers and frontispiece of this year book depict aerial views of the project, as well as an impression of the interior design.

Finance

In the following table, identifiable receipts and outlay relating to the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions of the Commonwealth Government in respect of the Australian Capital Territory in the Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Forestry, Australian Capital Territory Housing, Australian Capital Territory Transport and Australian Capital Territory Suspense. In addition, details of the financial transactions of the following public corporations are also covered: Australian Capital Territory Electricity Authority, Commonwealth Brickworks (to September 1979), Canberra Retail Market Trust, National Capital Development Commission, the Canberra Theatre Trust, the Canberra College of Advanced Education, A.C.T. Gaming and Liquor Authority, Canberra Commercial Development Authority and the Capital Territory Health Commission including the Canberra and Woden Valley Hospitals. Not included are revenue derived by the Commonwealth Government from income taxes, sales tax, etc., levied in the Australian Capital Territory; outlay on items of a national character such as defence, civil aviation, railways, etc.; and payments to residents from the National Welfare Fund.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND OUTLAY

($'000)

	1976–77	*1977–78*	*1978–79*	*1979–80*	*1980–81*	*1981–82*
RECEIPTS						
Taxation—						
Rates on land	12,098	13,634	15,011	16,540	19,249	20,910
Liquor	1,260	1,325	2,395	2,136	2,968	3,455
Motor registration and licences	4,954	7,127	7,859	7,793	7,789	10,621
Payroll tax	11,296	11,945	13,142	12,373	13,184	15,275
Stamp duties	4,455	5,003	5,573	6,904	8,382	10,792
Other taxes, fees, fines, etc.	1,635	2,839	4,223	5,135	6,161	5,713
Interest, rent, etc.	21,899	26,214	25,993	25,986	31,650	29,227
Income from public enterprises	4,566	4,301	4,762	6,131	6,454	11,482
Net sale of public corporation securities	(*a*) 27,903	(*a*) 15,492	6,798	7,031	−728	3,291
Other receipts	(*a*)−9,778	18,649	12,960	12,269	2,686	3,756
Net charge to Commonwealth Government budget	316,292	329,207	294,665	297,898	278,312	293,311
Total receipts	**396,580**	**435,736**	**393,381**	**400,195**	**376,107**	**407,833**

OUTLAY

Final consumption expenditure—						
Law, order and public safety	13,808	16,109	19,215	21,099	22,473	32,079
Education	79,089	91,140	100,552	112,048	129,789	151,102
Health, social security and welfare	42,808	49,993	54,859	64,395	74,476	84,192
Other	49,949	47,400	43,452	50,756	57,484	59,041
Expenditure on new fixed assets and stocks—						
Education	31,186	26,367	20,676	20,728	16,653	7,854
Health, social security and welfare	7,406	8,493	8,941	5,775	5,505	4,077
Housing	−1,777	−5,263	−4,751	−7,016	−9,734	−8,265
Community and regional development	35,235	32,984	16,000	10,211	12,567	10,298
Protection of the environment	24,277	13,212	8,366	5,024	1,660	1,516
Recreation and related cultural services	10,371	11,751	13,999	17,356	26,470	20,355
Electricity, gas and water	28,817	25,495	16,465	6,935	10,783	8,580
Roads	11,937	30,819	31,882	25,763	15,667	13,689
Other	49,535	63,828	57,051	64,358	36,694	25,226
Net purchase of existing assets	−19,426	−13,604	−17,423	−15,687	−37,858	−25,161
Interest paid	853	3,213	4,692	6,888	6,416	6,480
Cash benefits	1,911	2,862	4,060	4,686	6,117	7,226
Subsidies	167	207	191	376	451	224
Net advances for housing	19,480	21,490	7,566	1,502	−3,401	6,491
Grants for private capital purposes	10,954	9,240	7,588	4,998	3,895	2,829
Total outlay	**396,580**	**435,736**	**393,381**	**400,195**	**376,107**	**407,833**

(*a*) Includes financing transactions of the Canberra Commercial Development Authority.

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29°02′S, longitude 167°57′E approximately. Its total area is approximately 3,455 hectares, the island being about 8 kilometres long and 5 kilometres wide. It is 1,676 kilometres from Sydney and 1,063 kilometres from Auckland. The coastline, which is 32 kilometres long, consists of almost inaccessible cliffs rising from the waters edge, except at Kingston in the south and the landing place at Cascade on the northern side. The climate is equable, the average daily maximum temperature varying between 16°C and 28°C, and the average annual rainfall is 1,350 millimetres. The resident population is about 1,800.

The island served as a penal station from 1788 to 1813 and from 1825 to 1855. In 1856, 194 descendants of the *Bounty* mutineers were transferred there from Pitcairn Island. *See* photo page 7.

Administration

In 1856, the Island was created a distinct and separate settlement under the jurisdiction of the Governor of New South Wales. In 1897 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act 1913*, became a Territory of Australia.

In May 1978 the Government announced that it should try to develop for Norfolk Island a form of Government involving the Island's own elected representatives under which the necessary revenue could be raised by its own system of law. The *Norfolk Island Act 1979*, which was assented to on 30 May, established the framework for this objective. In broad terms, the Act equips Norfolk Island with responsible legislative and executive government to enable it to run its own affairs to the greatest practicable extent. Wide powers are exercised by the Norfolk Island Legislative Assembly and by an Executive Council, comprising the executive members of the Legislative Assembly who have ministerial-type responsibilities. The Act preserves the Commonwealth's responsibility for Norfolk Island as a Territory under its authority, with the Minister for Territories and Local Government as the responsible Minister; and indicates the Parliament's intention that consideration will be given to an extension of the powers of the Legislative Assembly and the political and administrative institutions of Norfolk Island within five years.

The Office of the Administrator is financed from Commonwealth expenditure which amounted to $198,000 in 1983–84. A further $301,000 was provided by the Commonwealth during the year for the restoration and maintenance of historic structures.

Economic activity

The major economic activity of the island is tourism. Primary production is not fully adequate for local needs and foodstuffs are imported from New Zealand and Australia.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and there is only very limited production of export crops.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. Owing to a marked scarcity of whales after 1961 the station was closed down.

A forestry program is being carried out to increase the resources of Norfolk Island Pine and to introduce suitable types of eucalypts.

Tourists. Regular sea and air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. At present, accommodation consists of flats and hotels as well as licensed and unlicensed guest houses.

Employment. A large proportion of the population derives its income from various aspects of the tourist industry including the operation of hotels and low duty stores. The Commonwealth Government provides service through staff from the Departments of Aviation and Science and Technology (Bureau of Meteorology). A number of clerical and other positions are available to islanders in the Norfolk Island Administration. Very few people rely entirely on agricultural pursuits for their income.

Trade, transport and communication

Imports to Norfolk Island since the 1939–45 War have risen from $65,000 in 1945–46 to over $15 million in 1983–84. The major proportion came from Australia and New Zealand. Exports in 1983–84 amounted to $2.1 million, mainly to Australia and New Zealand, the principal markets. No duties are chargeable on goods imported into Australia from Norfolk Island if (i) the goods are produced or manufactured in Norfolk Island and shipped direct to Australia, and (ii) not goods which, if manufactured or produced in Australia, would be subject to excise duty.

One shipping company operates a service to Norfolk Island at approximately monthly intervals, linking the island with Australia, New Zealand and other islands in the South Pacific area.

A passenger and air freight service between Sydney and Norfolk Island is operated by East-West Airlines Ltd. 4-6 times a week. Air New Zealand Limited provides a service 2-3 times a week to the island from Auckland. Flights between Norfolk and Brisbane are operated by Air New South Wales 2-3 times a week and by Norfolk Island Airlines 2-4 times a week.

There are approximately 80 kilometres of motor roads on the island. A substantial section of the population possesses private motor cars. Hire cars, taxis and scooters are available.

The island has an automatic telephone exchange and international telephone connection with Australia, New Zealand and Fiji by way of the ANZCAN submarine cable system. A local broadcasting service is operated by the Administration.

Education

Education is free and compulsory between the ages of 6 and 15 years. The school, which is conducted for the Administration by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from Kindergarten to the School Certificate (Year 10) level. The number of students enrolled at 30 June 1984 was 297.

Some bursaries, subject to a means test, are available for pupils who wish to attend a mainland school either to continue their studies beyond the School Certificate level or to undertake high school courses not available on the island. A limited number of trainee scholarships are available for pupils who have left school and wish to undertake apprenticeships or similar training away from the island.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of the court is exercised by one judge sitting in court or, to the extent that in the cases provided by or under ordinance, sitting in chambers. The jurisdiction of the Court of Petty Sessions is exercised by the Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

Until 1979 Norfolk Island revenue was supplemented by annual grants from the Commonwealth Government. Under present constitutional arrangements the cost of maintaining the island, other than the Administrator and his staff, is met as far as practicable from Island sources.

NORFOLK ISLAND: REVENUE AND EXPENDITURE
($'000)

	1978–79	*1979–80*	*1980–81*	*1981–82*	*1982–83*	1983–84
REVENUE						
Government grant	144	—	—	—	—	—
Customs duty	566	680	995	785	710	1,104
Liquor profit	285	332	339	287	288	423
Company fees	187	137	121	103	111	96
Sale of stamps	613	856	1,075	1,351	755	1,016
Vehicle registration and licence fees	77	77	81	57	92	113
All other	412	427	677	830	718	1,094
Total revenue	**2,284**	**2,509**	**3,288**	**3,413**	**2,674**	**3 846**
EXPENDITURE						
Administration	786	736	903	1,334	1,214	1,451
Education services	322	122	425	722	453	627
Health and welfare services	275	312	363	452	485	469
Repairs and maintenance	302	389	378	470	436	467
Capital works and services	252	252	353	317	210	99
Miscellaneous services	172	242	155	277	278	312
Legislative Assembly	n.a.	92	234	110	183	192
Total expenditure	**2,109**	**2,145**	**2,811**	**3,682**	**3,261**	**3,617**

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 4,100 kilometres south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953. In 1968, the responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply, and in 1972 the responsibility was transferred to the Minister for Science and Technology.

In December 1947, an Australian scientific station was established on Heard Island. Meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the Island from time to time. Heard Island is about 43 kilometres long and 20 kilometres wide. The McDonald Islands are 43 kilometres to the west of Heard Island. They are small, rocky and precipitous. The first known landing on McDonald Island, the largest of the group of the same name, took place on 27 January 1971 when two members of the Australian National Antarctic Research Expeditions (ANARE) paid a short visit on their way to the Heard Island station.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Terre Adelie situated south of 60°S latitude and lying between 160°E longitude and 45°E longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act 1933.* The boundaries of Terre Adelie were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60°S latitude lying between 136°E longitude and 142°E longitude. The *Australian Antarctic Territory Act 1954* declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory. In 1968 responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply, and in 1972 the responsibility was transferred to the Minister for Science. For map of Antarctica, *see* following page.

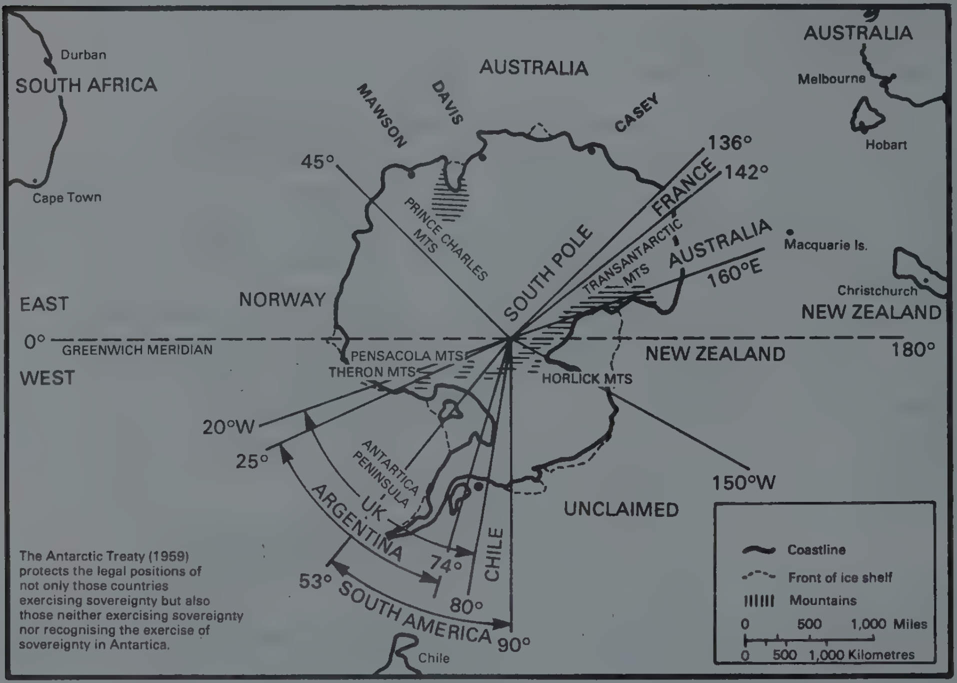
On 13 February 1954 the Australian National Antarctic Research Expeditions (ANARE) established a station on Mac-Robertson Land at latitude 67° 36′S and longitude 62° 53′E. The station was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Scientific research (including meteorology, cosmic ray physics and glaciology) is conducted at Mawson, which is also a centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 35′S and longitude 77° 58′E. The station was named in honour of the late Captain John King Davis, second-in-command of two of Mawson's expeditions and master of several famous Antarctic ships. The station was temporarily closed on 25 January 1965 and re-opened on 15 February 1969. On 4 February 1959 the Commonwealth Government accepted from the United States Government custody of Wilkes station, which was established by the United States on 16 January 1957 on Vincennes Bay at latitude 66° 15′S and longitude 110° 32′E. The station was named in honour of Lieutenant Charles Wilkes who commanded the 1838-42 United States expedition to the area. The station was closed on 19 February 1969 when activities were transferred to Casey station built about 2 kilometres south of Wilkes. Casey station, which was opened on 19 February 1969, was named in honour of Lord Casey, former Governor-General of Australia, in recognition of this long association with Australia's Antarctic effort.

In 1981-82 a ten-year program for redeveloping Australia's Antarctic stations began and is now well advanced. The stations act as bases for mounting inland programs and provide basic facilities for weather observations, communications and research.

The highest priority for research relates to the study of living and mineral resources of the Antarctic continent and off-shore areas and the environmental effects of their exploration and exploitation.

ANTARTICA


Durban
SOUTH AFRICA
Cape Town
AUSTRALIA
MAWSON
DAVIS
CASEY
AUSTRALIA
Melbourne
Hobart
45°
136°
142°
FRANCE
PRINCE CHARLES MTS
SOUTH POLE
TRANSANTARCTIC MTS
AUSTRALIA
160°E
Macquarie Is.
Christchurch
NEW ZEALAND
EAST
NORWAY
0°
GREENWICH MERIDIAN
WEST
PENSACOLA MTS
THERON MTS
HORLICK MTS
NEW ZEALAND
180°
20°W
25°
ANTARTICA PENINSULA
UK
ARGENTINA
74°
CHILE
150°W
UNCLAIMED
53°
SOUTH AMERICA
80°
90°
Chile
Coastline
Front of ice shelf
Mountains
0 500 1,000 Miles
0 500 1,000 Kilometres

The Antarctic Treaty (1959) protects the legal positions of not only those countries exercising sovereignty but also those neither exercising sovereignty nor recognising the exercise of sovereignty in Antartica.

PLATE 51

Australia's Antartic Territory covers some 6 million square kilometres—about the combined size of Western Australia, Queensland and the Northern Territory, and comprises approximately three sevenths of the Antarctic continent.

COCOS (KEELING) ISLANDS

General description

The Territory of the Cocos (Keeling) Islands comprises a group of 27 small coral islands in two separate atolls in the Indian Ocean, 2,768 kilometres north-west of Perth.

West Island, about 10 kilometres long, is the largest. The Territory's administrative community, airport and animal quarantine station are located there. The Cocos Malay community lives on Home Island.

The main atoll is low-lying, flat, and thickly covered by coconut palms, and surrounds a lagoon which has an anchorage in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about nine months of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable for those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 21°C and 32°C, and the average yearly rainfall is 1,998 millimetres. There are occasional violent storms.

History and administration

The islands were discovered in 1609 by Captain William Keeling of the East India Company, but were uninhabited until Alexander Hare and John Clunies-Ross established small settlements at different points on the main atoll in 1826 and 1827 respectively. Clunies-Ross secured sole possession in 1831 and the islands were declared part of the British Dominions in 1857. In 1878 responsibility for the supervision of the islands was transferred to the Government of Ceylon and eight years later, to the Government of the Straits Settlements.

In 1903 the islands were incorporated in the Settlement of Singapore but were attached again to Ceylon during the 1939-45 war while Singapore was under Japanese occupation.

By mutual agreement between the British and Australian Governments, and confirmed by complementary legislation, the islands became an Australian territory in 1955. The Australian Government purchased the Clunies-Ross interests in the Territory in 1978, except for the family home and grounds.

The Cocos (Keeling) Islands Act 1955 is the basis of the Territory's administrative, legislative and judicial systems.

An Administrator, appointed by the Governor-General and responsible to the Minister for Territories and Local Government, is the senior Government representative in the Territory.

On 25 July 1979 the Cocos (Keeling) Islands Council was elected by members of the Home Island community. The Council has responsibility for a wide range of functions in the Home Island village area, advises the Administrator on local affairs, and is also empowered to make representations on ordinances proposed for the Territory.

The Cocos Islands Co-operative Society Limited, also established in 1979, conducts the business enterprises of the Cocos people. The Co-operative undertakes copra production, building maintenance and construction, and stevedoring and lighterage services.

The Territory's own postal service, including a philatelic bureau, was opened in 1979. The service, run by the Administration, provides local employment and its profits are directed to the Cocos (Keeling) Islands Council for use on community projects.

On 6 April 1984 the Cocos Malay community, in an Act of Self Determination which took the form of a referendum observed by the United Nations, chose to integrate with Australia.

The population of the Cocos (Keeling) Islands at June 1984 was 584, distributed between Home Island (376) and West Island (208).

Transport and communication

There is an airport of international standard at West Island, controlled by the Administrator under licence from the Department of Transport. There is a weekly Perth-Christmas Island-Cocos (Keeling) Islands-Perth air charter service. A shipping service operates to the Territory every 6-8 weeks. A radio telephone service between West Island and Perth is maintained by the Administration. There are local postal and telephone services, and a non-commercial broadcasting station.

CHRISTMAS ISLAND

Christmas Island is an isolated peak situated in the Indian Ocean in latitude 10°25′S, longitude 105°40′E. It is approximately 360 kilometres south from Java Head at the south entrance to Sunda Strait, 1,300 kilometres from Singapore and 2,600 kilometres from Perth. Christmas Island covers an area of about 135 square kilometres. It consists of a central plateau about 150 to 250 metres above sea level with several prominent rises up to 360 metres high. The plateau descends to the sea in a series of steep slopes alternating with terraces. Sea cliffs over 20 metres high run along a considerable portion of the coastline except in a few places, the chief of which is Flying Fish Cove where the principal settlement is located and which is also the only anchorage.

The climate is pleasant, with prevailing winds coming from the south-east to east-south-east from May to December, and occasionally shifting round to between north and west from December to April (the wet season). The average yearly rainfall is about 2,673 mm with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the population of some 3,000 people and for the mining operations. The mean average temperature is about 27°C, and does not vary greatly throughout the year.

Economy

The economy of the Territory is based almost entirely on the mining and extraction of phosphate. During the year ended 30 June 1984, 772,000 tonnes of phosphate rock were sent to Australia and New Zealand, while 341,000 tonnes were exported elsewhere. Mining operations on Christmas Island are conducted by the Phosphate Mining Company of Christmas Island, Ltd (PMCI) which is wholly owned by the Australian Government. To minimise the impact of mining on the environment, a program of land rehabilitation has been adopted and a nursery is maintained for reafforestation.

Population

Some 3,214 people (2,078 males, 1,136 females) were residents of the Island at 30 June 1983. There is no indigenous population. Under the provisions of the Christmas Island Act and the Citizenship Act almost all residents are Australian citizens or have permanent Australian resident status.

Education

The Christmas Island Area School provides pre-school, primary and secondary education, based on the Western Australian curriculum. The Christmas Island Technical School conducts trades and commercial courses, and provides adult education classes and supervision of correspondence courses from the Western Australian Education Department's Technical Extension Service. Over 600 students are enrolled at the Area School.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony (from 1 January 1958, pending transfer to Australia) are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the island was transferred to Australia by the *Christmas Island Act 1958*. The Territory is administered by an Administrator appointed by the Governor-General. Responsibility for the administration and government of the Territory rests with the Minister for Territories and Local Government and the Administrator administers the Territory in accordance with instructions given to him by the Minister. The laws which were in force on the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia.

The Christmas Island Administration (Miscellaneous Amendments) Act received Royal Assent on 18 October 1984. The Act provides for the extension of the Commonwealth Electoral Act, Social Security Act, National Health Act, Student Assistance Act and related relevant Acts to Christmas Island. Following passage of the legislation, normal social security and health benefits apply with effect from 1 October and Australian citizens are entitled to vote in federal elections and referendums. Amendment of the *Christmas Island Act 1958* will enable ordinances to be made to regulate the use of land occupancy.

Transport and communication

Sea transport to and from the Island is maintained by vessels operated under charter by the phosphate manufacturers and the PMCI.

An air charter arranged by the Department of Territories and Local Government provides a weekly service to the island following a route Perth-Christmas Island-Cocos (Keeling) Islands-Perth. The PMCI operates a weekly air charter between Singapore and the island.

The Territory has its own radio broadcasting station, police force, postal service and philatelic bureau. A radio-telephone and teleprinter service operates between the island and the mainland, and links with Singapore and ships at sea.

CORAL SEA ISLANDS

The Coral Sea Islands Territory comprises scattered reefs and islands, often little more than sandbanks, spread over a sea area of 1,035,995 square kilometres with only a few square kilometres of land area. The territory lies between the Great Barrier Reef and longitude 157°10'E and between latitude 12° and 24°S. Some of the better known islands in the Territory are Cato Island, Chilcott Islet in the Coringa Group and the islands of the Willis Group.

The islands, or cays, are formed largely of coral and sand and some have a cover of grassy or scrub-type vegetation. Large populations of sea birds nest and breed in the area.

The Lihou Reef and Coringa-Herald National Nature Reserves, declared on 3 August 1982, provide protection for the wide variety of wildlife in these areas.

History

About one hundred years ago guano workers camped on a number of the islands. They were there to collect manure deposited by the sea birds. However, isolation, a lack of permanent fresh water, and the limited size of the islands, discouraged any further occupation.

The Commonwealth Government based its claim to the Coral Sea Islands on numerous acts of sovereignty since early this century and asserted its sovereignty by enacting the *Coral Sea Islands Act 1969* (which declared the Coral Sea Islands to be a Territory of Australia).

Installations

A lighthouse has been erected on Bougainville Reef and beacons operate on the Frederick and Lihou Reefs. A three-man meteorological station has provided a service on Willis Island since 1921 and there are eight automatic weather stations scattered throughout the Territory.

Most of the islands have been surveyed and the area is visited regularly both by Royal Australian Navy vessels and maintenance vessels of the Bureau of Meteorology.

Administration

By ordinance the laws of the Australian Capital Territory apply in the Coral Sea Islands Territory. The Minister for Territories and Local Government is responsible for matters affecting the Territory.

BIBLIOGRAPHY

ABS Publications

Northern Territory Statistical Summary (1306.7)
Australian Capital Territory Statistical Summary (1307.8)

Other Publications

Information additional to that contained in ABS publications is available in the Annual Reports of the Administrations of the various Territories.

STATISTICAL SUMMARY: AUSTRALIA

In earlier issues of the Year Book, it was the practice to include in the Statistical Summary figures for every tenth year of the period 1861 to 1901, plus the latest year for which data were available. In each subsequent issue, the latest year available was substituted for the year immediately preceding it until the next tenth year had been reached, and the earliest year in the series was eliminated as space was needed. In consequence of this system, no single issue of the Year Book contained a continuous yearly series.

In recent issues of the Year Book, this defect has been remedied in part by the inclusion of a continuous series back to the year 1949 where possible, with earlier tenth years back to 1901. In this issue of the Year Book the time series has been altered to show a continuous series back to 1959 where possible, with earlier tenth years back to 1901. In issue No. 39, pages xxviii–xxix, some of the series are shown for every tenth year from 1861 to 1941. There are, however, discrepancies between the original series and the series now published.

Breaks in series, preliminary figures, etc., are indicated by the symbols on page xvii of this Year Book.

DEMOGRAPHY

Year ended 31 De-December—	*Population(a)*			*Natural in-crease*	*Net migra-tion(b)*	*Marriages*		*Divorces (d)*	*Births*		*Deaths*		*Infant deaths*	
	Males	*Fe-males*	*Per-sons*			*No.*	*Rate(c)*		*No.*	*Rate(c)*	*No.*	*Rate(c)*	*No.*	*Rate(e)*
	'000	'000	'000	'000	'000	'000		'000	'000		'000		'000	
1901 . .	2,005	1,820	3,825	56.6	3.0	28	7.3	–	103	27.2	46	12.2	10.7	103.6
1911 . .	2,382	2,192	4,574	74.3	74.4	39	8.8	1	122	27.2	48	10.7	8.4	68.5
1921 . .	2,799	2,712	5,511	82.1	17.5	47	8.6	1	136	25.0	54	9.9	9.0	65.7
1931 . .	3,333	3,220	6,553	61.9	–10.1	39	6.0	2	119	18.2	57	8.7	5.0	42.1
1941 . .	3,599	3,545	7,144	59.1	(f) 6.9	75	10.6	3	135	18.9	75	10.6	5.3	39.7
1951 . .	4,311	4,217	8,528	111.5	108.9	77	9.2	7	193	23.0	82	9.7	4.9	25.2
1959 . .	5,132	5,029	10,161	137.8	75.8	74	7.4	7	227	22.6	89	8.9	4.9	21.5
1960 . .	5,253	5,139	10,392	141.9	89.1	75	7.3	7	230	22.4	88	8.6	4.6	20.2
1961 . .	(g) 5,374	(g) 5,268	(g) 10,643	(g) 151.8	58.7	77	7.3	7	240	22.8	89	8.5	4.7	19.5
1962 . .	5,470	5,376	10,846	144.4	59.0	79	7.4	7	237	22.3	93	8.7	4.8	20.4
1963 . .	5,572	5,484	11,055	141.3	68.1	81	7.4	8	236	21.6	95	8.7	4.6	19.5
1964 . .	5,683	5,597	11,280	129.1	95.8	86	7.7	8	229	20.6	101	9.0	4.4	19.1
1965 . .	5,794	5,712	11,505	123.7	101.3	94	8.2	9	223	19.6	100	8.8	4.1	18.5
1966 . .	5,891	5,814	11,705	119.2	80.2	(g) 96	(g) 8.3	10	(g) 224	(g) 19.3	(g) 105	(g) 9.0	(g) 4.2	(g) 18.7
1967 . .	5,992	5,920	11,912	126.6	80.8	100	8.5	10	229	19.4	103	8.7	4.2	18.3
1968 . .	6,108	6,037	12,146	131.4	102.0	106	8.8	11	241	20.0	110	9.1	4.3	17.8
1969 . .	6,238	6,169	12,407	143.7	118.0	112	9.2	11	250	20.4	106	8.7	4.5	17.9
1970 . .	6,365	6,299	12,663	144.5	111.8	116	9.3	12	258	20.6	113	9.0	4.6	17.9
1971 . .	(h) 6,632.8	(h) 6,565.5	(h) 13,198.4	165.7	103.6	118	(h) 9.0	13	276	(h) 21.1	111	(h) 8.5	4.8	17.3
1972 . .	6,735.7	6,673.6	13,409.3	155.2	56.3	114	8.6	16	265	19.9	110	8.3	4.4	16.7
1973 . .	6,835.5	6,778.9	13,614.3	136.8	67.5	113	8.3	16	248	18.3	111	8.2	4.1	16.5
1974 . .	6,941.9	6,890.0	13,832.0	129.3	87.2	111	8.1	18	245	17.9	116	8.4	4.0	16.1
1975 . .	7,002.2	6,966.6	13,968.9	124.0	13.5	104	7.5	24	233	16.8	109	7.8	3.3	14.3
1976 . .	7,065.8	7,044.3	14,110.1	115.1	34.0	110	7.8	(i) 63	228	16.2	113	8.0	3.2	13.8
1977 . .	7,145.4	7,136.1	14,281.5	117.5	68.0	105	7.4	45	226	15.9	109	7.7	2.8	12.5
1978 . .	7,123.6	7,217.3	14,430.8	115.8	47.4	103	7.2	41	224	15.6	108	7.5	2.7	12.2
1979 . .	7,293.3	7,309.1	14,602.5	116.6	68.6	104	7.2	38	223	15.4	107	7.3	2.5	11.4
1980 . .	7,391.4	7,415.9	14,807.4	116.8	100.9	109	7.4	39	226	15.3	109	7.4	2.4	10.7
1981 . .	7,511.1	7,538.4	15,049.5	126.8	121.8	114	7.6	41	236	15.8	109	7.3	2.3	10.0
1982 . .	7,624.4	7,652.4	15,276.8	125.1	102.2	117	7.7	44	240	15.8	115	7.6	2.5	10.3
1983p . .	7,710.0	7,741.9	15,451.9	132.9	42.2	115	7.5	43	243	15.8	110	7.2	2.3	9.4

(*a*) At 31 December. (*b*) Net Overseas migration component used in population estimates. Prior to 30 June 1971, net migration includes discrepancies disclosed by the various censuses and is based on the excess of all arrivals over all departures. From 30 June 1971, net migration is defined as the excess of overseas arrivals over overseas departures classified a spermanent and long-term (greater than one year). From 30 June 1976, net migration consists of net permanent and long-term movement and an adjustment for the net effect of changes in travel intentions which affect the categorization of movements. (*c*) Number per 1,000 of mean population. (*d*) Includes decrees made absolute and nullities of marriage up to and including 1946. From 1947 excludes nullities of marriage. (*e*) Number per 1,000 live births. (*f*) Excluses movements of defence personnel from September 1939 to June 1947. (*g*) Includes Aboriginals. (*h*) Figures for 1971 and later years are based on the estimate resident population introduced after the 1981 Census. Populations and rates for 1976 to 1981 have been recalculated using final 1981 Census results. (*i*) Introduction of Family Law Act.

SOCIAL

For details *see* following page.

PENSIONS, BENEFITS, ETC.

Year ended 30 June—	*Age and invalid pensions (including Wives' Allowances Pensions)*			*Family allowances (a)*		*Widow's pensions*		*Unemployment benefits*	
	Pensioners (b)	*No. of wives (c)*	*Amount paid (d)*	*No. of children (b)*	*Amount paid*	*Pensioners (b)*	*Amount paid (d)*	*No. on benefit—weekly average*	*Amount paid (d)*
	'000	'000	$m	'000	$m	'000	$m	'000	$m
1902	..	..	..	..	..	..	..	..	..
1912	90	..	4.3	..	..	..	..	..	..
1922	147	..	10.8	..	..	..	..	..	..
1932	261	..	22.3	..	..	..	..	..	..
1942	341	..	38.5	910	22.6	..	..	..	..
1952	426	11	119.6	2,518	93.2	41	11.2	2	(f)
1959	598	12	259.1	3,172	(e)135.1	50	21.6	28	11.9
1960	619	13	294.0	3,252	125.1	52	24.3	21	9.0
1961	651	14	315.9	3,340	(e)148.6	55	26.9	22	8.9
1962	691	14	360.5	3,420	132.8	57	30.2	53	25.3
1963	711	15	375.5	3,458	135.4	58	31.4	40	21.3
1964	725	16	399.9	3,631	(e)168.8	62	41.6	26	13.5
1965	736	16	426.6	3,711	172.8	65	47.0	14	6.8
1966	744	17	442.4	3,763	176.4	69	50.0	15	7.8
1967	764	19	481.8	3,835	(e)199.3	73	56.4	21	11.2
1968	797	19	514.0	3,891	187.9	75	61.1	21	11.2
1969	827	20	558.6	3,996	193.3	78	69.1	18	9.3
1970	913	23	642.0	4,079	(e)220.1	87	81.8	13	8.9
1971	942	23	702.3	4,156	198.5	90	90.5	15	10.8
1972	972	24	818.5	4,235	216.6	93	104.6	29	26.0
1973	1,081	41	1,072.4	4,239	(e)253.9	106	140.5	40	46.6
1974	1,184	47	1,372.4	4,261	225.4	115	181.0	34	58.2
1975	1,266	51	1,918.9	4,284	224.9	121	241.4	117	251.7
1976	1,342	59	2,536.4	4,293	(e)265.5	129	325.3	192	513.9
1977	1,408	69	2,994.6	4,302	1,023.3	139	370.2	216	618.1
1978	1,469	78	3,532.3	4,304	1,038.1	150	439.5	266	794.1
1979	1,512	86	3,919.4	4,231	(g)974.9	161	499.3	(h)306	910.0
1980	1,551	91	4,305.1	4,224	(i)1,035.4	166	561.4	(j)306	925.2
1981	1,569	86	4,816.5	4,227	950.4	166	641.8	(j)310	995.7
1982	1,584	82	5,484.1	4,254	1,041.8	164	717.4	(b)332	1,224.3
1983	1,611	83	5,935.9	4,303.3	1,373.7	165	758.1	540	2,249.0
1984	1,599	92	6,566.3	4,325.9	1,506.3	163	829.5	620	2,912.3

Year ended 30 June—	*Hospital and nursing home benefits—amount paid*	*Medical benefits—amount paid*	*Pharmaceutical benefits—amount paid*	*Total Commonwealth Government expenditure on pensions, benefits, etc. (k)*	*Disability pensions paid to veterans and dependants*		*Service pensions paid to veterans and dependants*	
					No. (b)	*Amount paid*	*No. (b)*	*Amount paid*
	$m	$m	$m	$m	'000	$m	'000	$m
1902	..	..	..	..	..	..	..	..
1912	..	..	..	4.3	..	..	..	..
1922	..	..	..	12.1	225	14.1	..	..
1932	..	..	..	23.0	274	14.9	..	..
1942	..	..	..	61.8	220	15.0	14	1.2
1952	13.4	2.1	15.4	275.2	525	66.7	17	3.6
1959	29.6	23.2	41.9	556.5	643	109.0	44	12.4
1960	37.2	26.8	48.7	598.7	655	117.5	46	13.5
1961	41.3	28.4	55.8	661.2	662	132.6	50	15.6
1962	44.4	30.6	70.4	730.4	671	135.1	58	19.4
1963	47.3	32.6	76.9	758.6	671	140.7	62	21.7
1964	56.2	34.4	78.8	832.7	669	154.5	65	24.2
1965	58.8	44.6	82.2	890.4	660	153.5	65	25.5
1966	60.7	54.6	91.8	941.6	647	170.5	66	28.2
1967	67.4	58.2	101.3	1,031.1	632	161.7	67	29.1
1968	74.8	62.5	105.1	1,075.0	617	164.4	69	31.8
1969	85.9	66.5	118.4	1,162.3	601	182.8	67	34.1
1970	111.4	76.1	136.7	1,341.8	585	183.5	74	39.9
1971	122.8	115.5	160.3	1,477.2	570	191.4	77	43.7
1972	162.0	160.4	173.3	1,752.3	553	211.1	78	49.2
1973	198.9	191.1	177.6	2,197.4	546	225.0	96	72.3
1974	226.5	198.9	218.3	2,666.2	532	252.2	109	103.6
1975	292.8	243.6	262.3	3,691.0	514	314.1	122	155.2
1976	254.1	(l)707.4	283.8	4,658.4	499	340.1	142	218.9
1977	195.4	(l)551.8	234.9	5,925.4	485	371.5	164	283.3
1978	188.5	(l)359.8	256.0	6,794.8	463	419.0	189	372.1
1979	200.2	(l)528.8	271.3	7,365.0	448	415.3	212	436.0
1980	227.4	(l)621.0	274.6	8,307.1	435	432.0	240	525.0
1981	277.8	682.9	309.2	9,367.5	423	496.3	272	686.5
1982	407.3	772.8	390.8	10,836.6	413	510.7	300	807.5
1983	511.9	916.8	430.3	11,557.7	410	646.5	341	1,058.0
1984	597.4	1,363.8	489.2	13,353.9	407	722.7	376	1,294.3

(*a*) Previously child and student endowment. (*b*) At 30 June. (*c*) Wives' allowance commenced on 8 July 1943 and was replaced by wives' pension on 5 October 1972. (*d*) Includes expenditure on additional pension/benefit for children. (*e*) Five 12-weekly payments made during the year instead of the normal four. (*f*) Less than $0.05 million. (*g*) Does not include $22,714,000 paid in respect of family allowance payday 3 July 1979. (*h*) Estimate used for Western Australia. (*i*) Includes $22,714,000 paid during 1978-79 in respect of family payday 3 July 1979. (*j*) Estimated. (*k*) National Welfare Fund items only, including expenditure for all years on pensions, benefits, etc. which subsequently became payable from the National Welfare Fund. In addition to the items shown in the preceding columns, the tables include expenditure on—the rehabilitation service; milk for school children; tuberculosis compaign; sickness, special and funeral benefits and some miscellaneous welfare and health services. Excludes war and service pensions, telephone rental concessions for pensioners and some minor welfare and health services. (*l*) Medical benefits applicable to the period 1976-79 were funded from both National Welfare fund and consolidated revenue.

SOCIAL—*continued*

EDUCATION / POLICE AND PRISONS

Year(*a*)	*Schools (b)*				*Universities*			
	Government		*Non-government*					
	Number	*Students*	*Number*	*Students*	*Number*	*Students*	*Police(c)*	*Convicted Prisoners*
	'000	'000	'000	'000		'000	'000	'000
1902	7.2	637	2.4	144	4	1.9	5.9	4.2
1912	8.4	663	1.9	164	6	3.8	6.6	3.4
1922	9.6	837	1.7	202	6	7.8	7.0	3.0
1932	10.2	934	1.8	221	6	9.9	8.6	4.1
1942	9.0	868	1.8	250	6	10.8	9.7	3.5
1952	7.6	1,145	1.9	348	8	29.6	12.6	4.8
1959	7.8	1,558	2.1	489	9	47.2	14.9	6.6
1960	7.9	1,613	2.1	511	9	53.4	15.3	6.8
1961	7.9	1,664	2.1	527	9	57.7	15.9	7.2
1962	7.9	1,711	2.2	540	10	63.3	16.4	7.4
1963	7.9	1,754	2.2	553	10	69.1	16.7	7.7
1964	7.9	1,799	2.2	565	10	76.2	17.2	7.7
1965	7.8	1,855	2.2	580	11	83.3	17.6	7.7
1966	7.8	1,919	2.2	583	13	91.3	18.4	8.1
1967	7.7	1,991	2.2	595	14	95.4	19.0	8.7
1968	7.6	2,055	2.2	601	14	101.5	19.7	8.8
1969	7.5	2,114	2.2	603	14	109.7	20.1	9.2
1970	7.5	2,160	2.2	608	15	116.8	20.3	9.3
1971	7.4	2,197	2.2	611	15	123.8	21.0	9.5
1972	7.4	2,229	2.2	612	15	128.7	22.2	9.8
1973	7.3	2,241	2.2	613	15	133.1	23.1	9.1
1974	7.3	2,253	2.2	618	17	142.9	24.4	7.6
1975	7.3	2,290	2.1	620	18	148.3	25.7	7.8
1976	7.3	2,323	2.1	624	18	154.0	26.3	8.0
1977	7.3	2,349	2.1	630	19	158.4	27.4	8.1
1978	7.4	2,354	2.1	638	19	160.0	27.9	8.7
1979	7.4	2,337	2.2	650	19	160.8	31.0	9.4
1980	7.4	2,318	2.2	666	19	163.2	31.6	8.8
1981	7.5	2,299	2.3	688	19	166.6	32.3	n.a
1982	7.6	2,283	2.3	712	19	167.4	32.7	8.8
1983	7.5	2,281	2.4	735	19	169.4	33.7	9.1

(*a*) Years ended at varying dates for education statistics. Years ended 30 June for Police and Prisons. (*b*) From 1974, all pre-primary education undertaken on a sessional basis or in a recognised pre-school class of a primary/secondary school has been excluded. (*c*) Excludes Commonwealth Police from 1902 to 1978 inclusive.

INDUSTRIES

PASTORAL, DAIRYING, ETC.

Year ended 30 June—	*Livestock(a)*			*Wool (b)(c)*	*Butter*	*Cheese*	*Meat(d)*			
	Cattle	*Sheep*	*Pigs*				*Beef and veal*	*Mutton and lamb*	*Pigmeat*	*Total meat*
	mil.	mil.	mil.	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes
1902	8.5	72	0.9	245	(*e*)46	(*e*)5.3	n.a.	n.a.	n.a.	n.a.
1912	11.8	97	1.1	362	(*e*)96	(*e*)7.2	n.a.	n.a.	n.a.	n.a.
1922	14.4	86	1.0	328	(*e*)121	(*e*)14.8	345	222	51	618
1932	12.3	111	1.2	457	177	14.3	355	312	72	739
1942	13.6	125	1.4	529	170	30.6	542	378	124	1,043
1952	14.9	118	1.0	490	137	41.3	591	287	86	964
1959	16.3	153	1.3	722	197	44.5	921	500	104	1,525
1960	16.5	155	1.4	762	201	45.7	764	583	102	1,449
1961	17.3	153	1.6	737	185	47.9	643	584	109	1,336
1962	18.0	158	1.7	770	202	56.6	804	596	122	1,522
1963	18.5	159	1.4	759	206	59.6	929	603	116	1,648
1964	19.1	165	1.5	810	207	59.2	1,001	595	113	1,710
1965	18.8	171	1.7	809	206	62.6	1,026	594	122	1,743
1966	17.9	158	1.7	754	209	59.6	946	608	135	1,690
1967	18.3	164	1.8	799	222	69.8	879	596	142	1,617
1968	19.2	167	2.1	803	196	70.5	904	665	150	1,718
1969	20.6	175	2.3	883	198	74.8	935	680	162	1,777
1970	22.2	180	2.4	926	223	76.3	1,010	755	174	1,940
1971	24.4	178	2.6	890	203	77.6	1,047	825	182	2,054
1972	27.4	163	3.2	882	195	80.9	1,168	956	194	2,319
1973	29.1	140	3.3	735	185	93.4	1,438	713	236	2,388
1974	30.8	145	2.5	701	175	95.8	1,322	467	211	2,000
1975	32.8	152	2.2	793	(*f*)161	(*f*)98.6	1,547	528	175	2,249
1976	33.4	149	2.2	754	148	112.6	1,840	588	174	2,602
1977	31.5	135	2.2	703	118	103.5	1,988	549	185	2,722
1978	29.3	131	2.2	677	112	115.7	2,184	514	199	2,897
1979	27.1	134	2.3	704	105	141.8	2,018	491	199	2,708
1980	26.2	136	2.5	709	84	154.2	1,564	547	218	2,330
1981	25.2	134	2.4	701	79	136.7	1,467	578	233	2,278
1982	24.6	138	2.4	717	76	15.3	1,576	511	228	2,315
1983	22.5	133	2.5	702	80	160	1,542	530	239	2,312
1984p	21.8	139	2.5	728			1,300	436	251	1,988

(*a*) At 31 December of previous year for years to 1942, at 31 March thereafter. (*b*) In terms of greasy. (*c*) 1901-02 and 1911-12 year ended previous December; then until 1946 47 year ended March; 1947 48 onwards, year ended June. (*d*) Carcass weight in terms of fresh meat. (*e*) Year ended previous December. (*f*) From 1974 75 excludes the production of certain small producers.

INDUSTRIES—*continued*

AGRICULTURE

	Wheat for grain			*Oats for grain*			*Barley for grain*			*Maize*		
Season	*Area*	*Pro-duction*	*Average yield*	*Area*	*Pro-duction*	*Average yield*	*Area*	*Pro-duction*	*Average yield*	*Area*	*Pro-duction*	*Average yield*
	mil hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes
1901 02	2.07	1.05	0.51	187	0.18	0.95	30	0.03	1.14	119	0.18	1.50
1911 12	3.01	1.95	0.65	250	0.17	0.70	47	0.05	0.99	138	0.23	1.65
1921 22	3.93	3.51	0.89	297	0.22	0.74	121	0.14	1.14	124	0.20	1.61
1931 32	5.97	5.18	0.87	439	0.28	0.63	139	0.14	1.03	109	0.18	1.65
1941 42	4.86	4.53	0.93	591	0.40	0.68	317	0.41	1.29	122	0.19	1.55
1951 52	4.20	4.34	1.03	957	0.63	0.65	452	0.50	1.10	69	0.10	1.49
1958 59	4.21	5.84	1.39	1,608	1.58	0.98	963	1.43	1.48	73	0.17	2.35
1959 60	4.93	5.39	1.09	1,226	0.85	0.69	963	0.78	0.81	75	0.17	2.28
1960 61	5.44	7.43	1.37	1,472	1.38	0.94	1,145	1.54	1.35	75	0.16	2.12
1961 62	5.96	6.71	1.13	1,253	1.00	0.80	965	0.94	0.98	85	0.19	2.18
1962 63	6.66	8.34	1.25	1,332	1.25	0.94	820	0.90	1.09	85	0.19	2.23
1963 64	6.67	8.91	1.34	1,373	1.24	0.90	815	0.98	1.21	87	0.17	1.96
1964 65	7.25	10.02	1.38	1,415	1.27	0.90	835	1.12	1.34	86	0.17	2.03
1965 66	7.09	7.05	1.00	1,525	1.10	0.72	930	0.95	1.02	80	0.12	1.57
1966 67	8.43	12.67	1.50	1,723	1.94	1.13	1,011	1.40	1.38	82	0.19	2.33
1967 68	9.08	7.55	0.83	1,368	0.72	0.53	1,057	0.83	0.79	81	0.18	2.23
1968 69	10.85	14.80	1.37	1,567	1.71	1.09	1,341	1.65	1.23	67	0.15	2.24
1969 70	9.49	10.55	1.11	1,374	1.25	0.91	1,521	1.70	1.12	80	0.19	2.41
1970 71	6.48	7.89	1.22	1,484	1.61	1.09	2,000	2.35	1.18	85	0.21	2.48
1971 72	7.14	8.61	1.21	1,237	1.28	1.03	2,532	3.66	1.21	78	0.21	2.74
1972 73	7.60	6.59	0.87	995	0.74	0.74	2,140	1.73	0.81	59	0.14	2.34
1973 74	8.95	11.99	1.34	1,182	1.11	0.94	1,894	2.40	1.27	46	0.11	2.32
1974 75	8.31	11.36	1.37	897	0.87	0.97	1,826	2.52	1.38	51	0.13	2.59
1975 76	8.56	11.98	1.40	988	1.14	1.15	2,329	3.18	1.36	47	0.13	2.81
1976 77	8.96	11.80	1.32	995	1.07	1.08	2,321	2.85	1.23	53	0.14	2.72
1977 78	9.95	9.37	0.94	1,076	0.99	0.92	2,803	2.38	0.85	45	0.13	2.87
1978 79	10.25	18.09	1.77	1,359	1.76	1.30	2,785	4.01	1.44	50	0.17	3.38
1979 80	11.15	16.19	1.45	1,123	1.41	1.26	2,482	3.70	1.49	54	0.15	2.79
1980 81	11.28	10.86	0.96	1,093	1.13	1.03	2,451	2.68	1.09	56	0.17	3.06
1981 82	11.88	16.36	1.38	1,388	1.62	1.16	2,685	3.45	1.29	61	0.21	3.48
1982 83	11.52	8.88	0.77	1,212	0.85	0.70	2,452	1.94	0.79	64	0.14	2.17
1983 84*p*	12.91	22.06	1.71	1,743	2.27	1.30	3,163	4.94	1.56	63	NYA	NYA

	Hay			*Potatoes*			*Sugar-cane(a)*			*Vineyards*		*All crops*
Season	*Area*	*Pro-duction*	*Average yield*	*Area*	*Pro-duction*	*Average yield*	*Area*	*Pro-duction*	*Average yield*	*Area*	*Wine made*	*Area*
	'000 hectares	'000 tonnes	tonnes	'000 hectares	'000 tonnes	tonnes	'000 hectares	'000 tonnes	tonnes	'000 hectares	mil. litres	mil. hectares
1901 02	683	2,057	3.01	44	328	7.4	35	1,390	39.5	26	24	3.4
1911 12	1,019	2,914	2.86	53	306	5.8	41	1,709	41.8	25	23	4.9
1921 22	1,212	3,965	3.27	60	394	6.5	52	2,476	47.7	37	39	6.2
1931 32	1,066	3,218	3.02	59	403	6.9	98	4,281	43.8	46	65	8.6
1941 42	1,116	3,632	3.25	40	338	8.4	103	5,236	50.8	53	71	(*b*)8.3
1951 52	627	2,382	3.80	48	517	10.8	114	5,412	47.5	55	160	(*b*)8.1
1958 59	1,221	5,171	4.23	42	584	13.8	150	10,377	69.4	53	148	10.4
1959 60	852	3,227	3.79	44	589	13.4	127	9,147	72.0	53	129	10.6
1960 61	1,203	5,160	4.29	37	458	12.3	138	9,313	67.5	53	153	12.0
1961 62	920	3,752	4.08	38	534	14.0	157	9,730	62.1	54	190	12.0
1962 63	1,101	4,793	4.35	46	677	14.7	163	12,940	79.6	54	136	13.0
1963 64	1,053	4,338	4.12	41	571	13.8	169	12,313	72.9	55	172	13.0
1964 65	1,130	5,043	4.46	36	516	14.5	190	15,312	80.4	56	177	14.0
1965 66	1,125	4,246	3.77	39	649	16.7	204	14,382	70.6	57	156	14.0
1966 67	1,415	6,473	4.58	40	653	16.3	226	16,953	75.1	56	190	16.0
1967 68	502	1,246	2.48	43	669	15.6	224	17,025	76.1	57	202	14.6
1968 69	428	1,728	4.04	46	811	17.7	230	18,708	81.3	58	236	16.7
1969 70	428	1,514	3.54	43	762	17.6	213	15,784	74.2	61	288	15.7
1970 71	348	1,298	3.73	39	774	20.1	221	17,645	80.0	64	250	13.4
1971 72	340	1,246	3.66	40	822	20.3	234	19,391	83.0	67	289	14.2
1972 73	453	1,224	2.70	37	721	19.7	242	18,928	78.3	69	266	14.3
1973 74	325	1,034	3.18	34	649	19.0	226	19,278	85.4	70	295	15.1
1974 75	216	669	3.10	38	742	19.7	253	20,418	80.7	71	361	13.8
1975 76	230	738	3.21	33	696	20.9	257	21,959	85.5	70	356	14.5
1976 77	287	891	3.10	34	728	21.5	288	23,344	81.0	71	383	15.0
1977 78	313	795	2.54	36	772	21.4	295	23,493	79.6	71	340	16.8
1978 79	293	955	3.26	35	795	23.0	252	21,457	85.2	71	335	17.4
1979 80	265	819	3.09	37	857	23.4	267	21,510	79.2	70	414	18.0
1980 81	320	826	2.58	36	866	24.2	288	23,976	83.2	70	374	18.3
1981 82	380	1,033	2.72	36	919	25.4	316	25,094	79.4	68	403	19.6
1982 83	408	879	2.15	37	858	23.0	319	24,817	77.9	67	340	19.4
1983 84*p*	382	1,221	3.20	32	NYA	NYA	307	24,263	79.0	66	NYA	21.9

(*a*) Cane cut for crushing. (*b*) Excludes Northern Territory.

INDUSTRIES—*continued*

GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES

Year ended 30 June—	*Crop production*	*Pastoral*	*Dairying*	*Poultry*	*Bee-farming*	*Total agri-culture*	*Hunting*	*Forestry*	*Fishing*	*Total primary excluding mining*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1902	47.6	54.4	15.2	4.0	0.2	121.4	n.a.	(a)5.6	(b)	127.0
1912	77.6	105.4	32.2	8.0	0.2	223.4	n.a.	9.6	2.2	235.2
1922	163.8	150.2	70.6	18.0	0.2	402.8	n.a.	18.2	2.8	423.8
1932	149.0	123.1	66.1	17.1	0.2	355.5	3.2	15.4	3.3	377.4
1942	201.0	198.7	91.1	24.8	0.9	516.4	10.8	23.3	4.2	554.7
1952	664.3	899.6	260.6	97.0	1.7	1,923.3	14.8	82.7	13.3	2,034.1
1959	919.9	1,076.1	400.7	109.6	3.8	2,509.9	14.3	116.4	24.5	2,665.1
1960	820.7	1,275.2	425.4	119.7	5.1	2,646.1	15.4	108.1	27.2	2,796.8
1961	1,071.4	1,130.6	409.5	130.2	3.8	2,745.4	14.8	108.4	28.5	2,897.1
1962	1,008.3	1,187.3	412.5	121.7	4.0	2,733.9	13.3	100.1	31.7	2,879.0
1963	1,136.6	1,287.1	439.4	123.6	3.5	2,990.2	12.8	101.6	34.1	3,138.7
1964	1,228.4	1,562.7	463.5	138.2	6.0	3,398.9	15.0	108.0	35.4	3,557.3
1965	1,320.0	1,454.5	505.3	137.4	5.1	3,422.3	14.6	116.3	42.4	3,595.6
1966	1,181.3	1,467.8	508.0	154.6	4.3	3,316.0	15.6	120.3	45.8	3,497.7
1967	1,639.3	1,486.1	523.8	171.6	4.0	3,824.7	13.5	117.7	48.8	4,004.7
1968	1,268.8	1,395.2	504.1	169.3	4.6	3,342.1	12.1	118.8	58.5	3,531.5
1969	1,717.3	1,536.8	513.7	176.2	3.0	3,947.0	12.1	119.5	63.0	4,141.6

(a) Includes Fishing. (b) Included in Forestry.

The classification categories 'Pastoral', 'Dairying', 'Poultry' and 'Bee-farming' employed in the previous table have been replaced by a more appropriate commodity classification. Direct comparison with figures for previous years is not possible.

GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES

Year ended 30 June—	*Crops*	*Livestock slaughtering and other disposals(a)*	*Livestock products*	*Total agriculture*	*Forestry*	*Fishing*	*Hunting*
	$m	$m	$m	$m	$m	$m	$m
1970	1,453.8	1,007.7	1,268.6	3,730.1	125.0	63.3	12.5
1971	1,490.8	1,009.9	1,079.0	3,579.7	137.2	77.2	10.2
1972	1,597.6	1,134.4	1,235.6	3,967.7	151.2	92.1	10.2
1973	1,582.4	1,542.2	1,832.5	4,957.1	170.6	100.7	12.1
1974	2,858.7	1,696.0	1,857.0	6,411.7	193.3	109.3	12.5
1975	3,203.8	1,019.2	1,653.1	5,876.0	212.6	107.7	13.8
1976	3,248.2	1,246.4	1,678.1	6,172.7	227.1	146.6	18.0
1977	3,189.7	1,685.7	1,881.2	6,756.6	251.7	206.3	23.5
1978	3,047.0	1,954.4	1,970.4	6,971.8	263.4	233.4	27.1
1979	4,912.5	3,097.7	2,214.5	10,224.7	276.8	279.7	38.1
1980	5,540.8	3,658.8	2,564.3	11,763.9	357.4	317.5	38.0
1981	5,305.9	3,474.3	2,803.8	11,584.1	(b)	(b)	(b)
1982	6,311.9	3,295.6	3,100.6	12,708.2	..	..	..
1983	5,002.6	3,489.6	3,210.2	11,702.4	..	..	..
1984(*p*)	8,112.1	3,391.3	3,493.3	14,997.0	..	..	..

(*a*) Includes adjustment for net exports (overseas and interstate) of live animals. (*b*) No longer collected. 1979–80 final year.

INDUSTRIES—*continued*

MINERALS — FORESTRY

Year ended 31 December (1901–1968) 30 June (1969 onward)—	*Copper (a)*	*Gold (a)*	*Lead (a)*	*Zinc (a)*	*Iron ore*	*Black coal*	*Brown coal*	*Crude oil*	*Year ended 30 June—*	*Sawn output of Aust. grown timber*
	'000 tonnes	'000 kg	'000 tonnes	'000 tonnes	mil. tonnes	mil. tonnes	mil. tonnes	'000 cu m		'000 cu m
1901	29.9	102,642	n.a.	(*b*)	n.a.	7.0		..	1902	(*c*)1,067
1911	46.1	77,263	225.3	241.9	(*b*)	10.7		..	1912	(*c*)1,428
1921	11.2	23,577	82.3	141.7	0.7	13.1		...	1922	1,392
1931	13.9	18,510	150.8	75.4	(*b*)	10.8		..	1932	559
1941	22.7	46,553	295.7	251.2	2.5	19.1		..	1942	2,157
1951	18.4	27,855	215.4	192.3	2.5	25.9		..	1952	3,287
1959	96.5	33,751	321.4	279.8	4.2	33.9		..	1960	3,589
1960	111.2	33.800	313.1	322.6	4.4	38.1		..	1961	3,346
1961	97.2	33,476	274.0	316.2	5.4	40.9		..	1962	3,190
1962	108.7	33,245	376.0	342.9	4.9	42.3		..	1963	3,341
1963	114.8	31,849	416.9	357.1	5.6	44.0		..	1964	3,509
1964	105.7	29,979	380.9	350.1	5.8	47.2		198	1965	3,615
1965	91.8	27,298	367.9	354.8	6.8	52.9		417	1966	3,558
1966	111.3	28,521	370.8	375.3	11.1	56.0		539	1967	3,448
1967	91.8	25,049	381.8	407.0	17.3	59.0		1,208	1968	3,476
1968	109.6	24,316	388.8	422.4	26.6	64.2		2,206	1969	(*d*)3,325
1969	125.3	22,711	417.7	463.2	32.5	43.3	23.1	2,237	1970	(*d*)3,386
1970	142.3	20,605	459.4	520.8	45.1	48.5	23.9	4,871	1971	3,438
1971	173.0	19,103	416.4	444.1	57.1	49.7	22.8	14,937	1972	3,367
1972	171.9	23,253	420.8	497.5	62.1	53.5	23.3	19,038	1973	3,408
1973	198.7	20,002	385.0	507.0	74.6	59.8	24.1	20,669	1974	3,336
1974	246.7	16,271	370.4	441.3	91.5	59.3	26.3	23,096	1975	3,230
1975	235.6	15,153	416.5	508.2	98.2	70.1	27.3	23,096	1976	3,228
1976	218.3	16,901	396.7	479.3	92.7	69.3	29.2	23,839	1977	3,164
1977	217.2	15,666	418.2	475.3	94.8	76.0	31.0	24,549	1978	3,056
1978	217.1	21,047	418.8	484.4	89.9	79.3	30.5	24,941	1979	3,110
1979	238.7	19,584	423.5	498.5	84.6	81.2	32.1	24,839	1980	3,279
1980	235.1	18,272	n.p.	518.0	97.0	81.2	32.9	23,647	1981	3,407
1981	246.4	15,991	381.4	481.9	93.8	96.1	32.1	23,053	1982	3,219
1982	259.6	22,328	454.8	623.9	86.8	99.6	37.6	(*e*)22,378	1983	2,962
1983	235.3	25,825	n.p.	n.p.	79.0	107.8	35.0	22,069		

(*a*) Metallic content of minerals produced. (*b*) Less than 0.05. (*c*) Year ended previous December. (*d*) Excludes estimated quantity of timber from logs peeled or sliced for veneers. (*e*) Includes natural gas condensate.

FACTORIES (*a*)

Year ended 30 June—	*Number*	*Persons employed (b)*	*Salaries and wages paid(c)*	*Net value of production(d)*						
				Chemicals, etc.	*Industrial metals, etc.*	*Textiles, etc.*	*Clothing*	*Food, etc.*	*Paper, etc.*	*All groups*
	'000	'000	$m	$m	$m	$m	$m	$m	$m	$m
1902(*e*)	(*f*)	(*f*)	(*f*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	58.2
1912(*e*)	14.5	312	55	2.2	24.1	15.0		23.6	8.5	108.3
1922	18.0	379	136	6.4	47.2	38.4		54.4	18.0	225.0
1932	21.7	337	112	15.8	45.6	13.8	22.2	57.4	19.2	222.0
1942	27.0	725	360	59.6	239.8	42.0	47.2	106.4	34.2	633.0
1952	45.8	978	1,224	127.4	826.2	113.2	162.2	282.2	136.4	2,049.7
1959	54.9	1,088	1,941	322.4	1,471.6	191.3	221.5	469.1	263.4	3,685.2
1960	56.7	1,132	2,173	360.3	1,700.4	216.7	237.7	520.1	298.2	4,161.1
1961	57.8	1,145	2,289	366.1	1,795.9	213.6	247.2	542.5	318.6	4,349.8
1962	58.5	1,121	2,287	364.3	1,770.3	211.2	252.4	495.5	326.9	4,394.6
1963	59.1	1,168	2,447	411.4	1,954.7	233.8	266.3	636.9	350.9	4,795.2
1964	59.4	1,210	2,652	449.5	2,174.0	252.5	281.4	700.5	379.7	5,270.0
1965	61.0	1,269	2,994	504.8	2,486.1	279.6	302.3	757.1	426.9	5,896.8
1966	61.7	1,294	3,163	542.7	2,647.8	282.8	319.0	818.3	459.5	6,251.9
1967	62.5	1,309	3,408	627.6	2,912.9	303.1	341.5	892.3	503.3	6,877.0
1968	63.0	1,331	3,666	687.0	3,163.6	315.0	360.1	937.5	549.0	7,430.9
1969(*g*)	35.9	1,264	3,908	633.0	3,201.6	301.0	409.2	1,184.4	620.7	7,475.5
1970	35.7	1,297	4,329	681.8	3,551.9	310.3	452.1	1,321.9	701.8	8,261.7
1971	No manufacturing census was conducted in respect of this year.									
1972	36.1	1,303	5,257	804.1	4,052.0	333.7	521.5	1,683.9	818.1	9 703.2
1973	36.4	1,298	5,820	885.5	4,337.7	376.8	563.9	1,943.5	915.4	10,746.0

For footnotes *see* end of table.

FACTORIES (*a*)—*continued*

Year ended 30 June—	Number	Persons employed (*b*)	Salaries and wages paid(*c*)	Net value of production(*d*): Chemicals, etc.	Industrial metals, etc.	Textiles, etc.	Clothing	Food, etc.	Paper, etc.	All groups
	'000	'000	$m	$m	$m	$m	$m	$m	$m	$m
1974	37.1	1,338	7,177	1,076.2	5,529.4	481.1	676.1	2,126.0	1,110.5	13,149.2
1975(*h*)	27.0	1,245	8,531	1,172.2	6,635.8	409.2	696.8	2,650.5	1,279.4	15,246.4
1976(*h*)	27.5	1,200	9,472	1,261.7	7,084.9	542.3	841.7	3,074.1	1,391.4	16,921.0
1977(*h*)	26.8	1,176	10,536	1,464.6	8,088.5	563.1	894.2	3,501.8	1,614.2	19,234.3
1978(*h*)	26.1	1,144	11,136	1,697.4	8,217.9	581.4	967.7	3,767.4	1,763.0	20,236.3
1979(*h*)	26.3	1,144	11,966	1,898.8	9,180.2	641.5	1,049.4	4,035.5	1,960.8	22,230.1
1980(*h*)	27.4	1,154	13,358	2,201.4	10,887.8	708.4	1,130.7	4,413.8	2,248.4	25,614.0
1981(*h*)	27.7	1,150	14,911	2,513.3	11,843.8	769.4	1,267.1	5,023.5	2,568.1	28,531.1
1982	28.7	1,155	17,001	2,766.6	12,996.3	855.6	1,380.2	5,324.8	2,984.2	31,377.7

(*a*) Excludes Northern Territory and Australian Capital Territory before 1 July 1964. (*b*) Average over whole year, includes working proprietors. (*c*) Excludes amounts drawn by working proprietors. (*d*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*e*) Year ended previous December. (*f*) Owing to variation in classification, effective comparison is not possible. (*g*) Direct comparison with figures for previous years are not possible (for details, *see* Chapter 17). (*h*) All manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed.

INDUSTRIES, WAGES AND PRICES

Year ended 30 June—	GROSS VALUE OF PRODUCTION: Mining and quarrying	Manufacturing	BUILDING: New dwellings completed(*a*): Number	Value	Value of work done on all buildings(*b*)	WAGES AND PRICES: Year ended 31 December—	Weekly wage rates index adult males(*c*)	Award rates of pay index: weekly rates, adult males(*d*)	Retail price index numbers six State capital cities combined(*e*)
	$m	$m	'000	$m	$m				
1902	44.0	(*f*)58.2	n.a.	n.a.	n.a.	1901	n.a.	..	88
1912	46.6	(*f*)108.3	n.a.	n.a.	n.a.	1911	n.a.	..	100
1922	40.0	225.0	n.a.	n.a.	n.a.	1921	n.a.	..	(*i*)168
1932	27.0	220.0	n.a.	n.a.	n.a.	1931	n.a.	..	145
1942	66.8	633.0	n.a.	n.a.	n.a.	1941	38.5	..	167
						1951	85.8	..	313
1952	194.4	2,049.7	80.1	354.1	n.a.				
						1958	114.3	..	435
1959	236.7	3,685.2	84.2	527.3	864.9	1959	122.0	..	443
1960	252.3	4,161.1	90.0	571.0	1,001.6	1960	125.7	..	459
1961	278.1	4,349.8	94.5	627.4	1,130.8	1961	129.5	..	471
1962	274.5	4,394.6	86.3	593.2	1,076.9	1962	129.8	..	469
1963	291.0	4,795.2	87.7	610.2	1,140.7	1963	133.0	..	472
1964	327.7	5,270.0	96.7	685.8	1,323.9	1964	140.4	..	483
1965	400.1	5,896.8	112.7	823.0	1,555.9	1965	144.3	..	502
1966	443.9	6,251.9	112.8	869.9	1,681.2	1966	152.4	..	517
1967	515.5	6,877.0	111.9	914.8	1,745.4	1967	159.3	..	534
1968	568.1	7,430.9	120.2	1,022.8	1,914.3	1968	173.4	..	548
1969	(*g*)749.2	(*g*)7,468.5	130.7	1,182.1	2,195.4	1969	183.6	..	564
1970	(*g*)1,042.6	(*g*)8,277.8	142.2	1,379.4	2,556.7	1970	191.9	..	586
1971	(*g*)1,289.5	(*h*)n.a.	142.1	1,478.9	2,815.6	1971	218.0	..	621
1972	(*g*)1,428.3	(*g*)9,696.6	143.8	1,628.7	3,132.4	1972	239.8	..	658
1973	(*g*)1,597.3	(*g*)10,725.9	150.6	1,845.5	3,542.4	1973	275.1	..	720
1974	(*g*)1,996.1	(*g*)13,149.1	150.0	2,143.0	4,214.9	1974	373.8	..	829
1975	(*g*)2,669.1	(*g*)15,231.6	141.1	2,454.2	4,713.3	1975	416.8	..	954
1976	(*g*)3,049.7	(*g*)16,921.0	132.0	2,808.6	5,595.0	1976	478.1	104.3	1,083
1977	(*g*)3,548.2	(*g*)19,234.3	144.8	3,635.1	6,445.5	1977	526.8	114.5	1,216
1978	(*g*)3,905.0	(*g*)20,236.3	128.9	3,595.7	6,510.0	1978	569.9	123.3	1,313
1979	(*g*)3,875.1	(*g*)22,230.1	117.1	3,529.7	6,946.4	1979	597.7	129.9	1,432
1980	(*g*)5,483.3	(*g*)25,614.0	129.3	4,174.9	8,018.2	1980	662.5	*r*144.8	1,578
1981	(*g*)6,224.4	(*g*)28,531.1	135.9	4,875.8	10,026.3	1981	765.4	*r*166.6	1,731
1982	(*g*)6,697.7	31,377.7	138.3	5,808.2	11,036.5	1982	n.a.	184.9	1,923
1983	8,146.6	(*h*)	115.3	5,165.1	9,840.7	1983	n.a.	193.7	..

(*a*) Series commenced 1945–46. Partly estimated before July 1951, and excludes Northern Territory before July 1954. (*b*) Building by private contractors, government authorities and owner builders. (*c*) At 31 December, Base; year 1954=100, weighted average for 'wage' earners only. Excludes rural industry. Series replaced by Award Rates of Pay Indexes from September 1982. (*d*) At 31 December. Base: June 1976=100.0. Excludes ASIC Division A—Agriculture, forestry, fishing and hunting; ASIC sub-division 72 - Defence forces and ASIC sub-division 94 Private households employing staff. This series shows index numbers for both wage and salary earners (i.e. all employees). (*e*) Base; year 1911=100. The index numbers are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are; from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946 47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948 -49 onwards, the Consumer Price Index. (*f*) Year ended previous December. (*g*) Value added from 1968–69. (*h*) Manufacturing census was not conducted. (*i*) November.

TRANSPORT AND COMMUNICATION

SHIPPING

Year ended 30 June	Vessels on overseas voyages: Arrivals: No.	Vessels on overseas voyages: Arrivals: Net tonnage	Vessels on overseas voyages: Departures: No.	Vessels on overseas voyages: Departures: Net tonnage	Overseas cargo: Discharged	Overseas cargo: Loaded
		mil. tons		mil. tons	mil. revenue tonnes(*c*)	mil. revenue tonnes(*c*)
1902	(*a*)	(*a*)	(*a*)	(*a*)	n.a.	n.a.
1912(*b*)	2,081	5.0	2,093	5.0	n.a.	n.a.
1922	1,567	4.6	1,544	4.5	2.4	5.8
1932	1,519	5.7	1,538	5.7	3.1	6.8
1942	1,276	5.2	1,268	5.6	5.8	4.4
1952	2,038	9.0	2,098	9.3	15.2	6.0
1959	2,706	12.9	2,757	13.1	17.5	10.5
1960	2,976	14.5	2,969	14.4	19.4	12.0
1961	3,382	17.3	3,396	17.0	21.8	15.8
1962	3,599	18.9	3,611	18.8	20.9	19.3
1963	3,411	19.0	3,351	18.6	23.6	17.5
1964	3,714	20.7	3,763	20.9	25.6	22.2
1965	3,813	21.7	3,788	21.7	28.6	23.0
1966	3,929	23.0	4,029	23.3	29.2	24.4
1967	3,977	27.4	4,017	27.6	32.2	35.4
1968	3,972	30.1	4,013	30.3	33.3	44.4
1969	4,390	36.4	4,360	36.2	35.7	58.1
1970	4,971	44.5	5,053	44.6	34.5	80.5
1971	5,476	50.8	5,578	51.4	27.5	104.8
1972	5,439	53.1	5,447	53.5	25.4	111.2
1973	5,647	62.6	5,631	62.0	26.3	135.9
1974	5,975	72.0	5,909	71.5	30.7	153.6
1975	6,230	80.3	5,254	80.3	29.9	167.8
1976	5,772	75.0	5,824	75.4	26.9	158.6
1977	5,830	79.7	5,823	79.5	28.4	167.1
1978	5,615	80.2	5,668	80.4	27.0	166.7
1979	5,677	82.8	5,655	82.5	28.7	167.3
1980	6,249	(*d*)247.2	6,168	(*d*)246.6	31.0	188.7
1981	5,995	237.2	5,922	234.6	32.5	179.4
1982	5,895	234.0	5,838	236.7	31.4	177.0

(*a*) Separate details not available. Total entrances and clearances for year ended December 1901, 4,028 vessels, 6.5 million tons. (*b*) Year ended previous December. (*c*) Tons weight plus tons measurement. (*d*) Net tonnage replaced by dead weight tonnage as from July 1, 1979.

GOVERNMENT RAILWAYS (*a*)

REGULAR INTERNAL AIR SERVICES

Year ended 30 June—	Route kilometres (*b*)	Train kilometres	Passenger journeys	Freight-tonnes carried	Freight net tonne-kilometres	Kilometres flown	Passengers: Embarkations	Passengers: Passenger kilometres	Freight: Tonnes uplifted	Freight: Tonne-kilometres	Mail: Tonnes uplifted	Mail: Tonne-kilometres
	'000	mil.	mil.	mil.	mil.	mil.	'000	mil.	'000	mil.	'000	mil.
1902	20.6	61.5	115	15.7	n.a.	. .	. .	. .	. .	. .	. .	. .
1912	27.0	88.8	228	25.9	n.a.	. .	. .	. .	. .	. .	. .	. .
1922	37.7	90.3	335	32.0	n.a.	. .	. .	. .	. .	. .	. .	. .
1932	43.5	102.7	303	26.5	n.a.	1.4	6	5		n.a.		n.a.
1942	43.8	142.4	475	39.5	n.a.	12.6	151	122	1.2	1.5	n.a.	0.7
1952	43.1	150.3	501	45.0	11,046	67.3	1,829	1,162	52.2	39.0	2.4	1.9
1959	42.3	146.9	485	48.8	11,970	64.9	2,235	1,519	57.0	42.0	2.4	2.2
1960	42.2	140.2	479	52.0	13,091	69.5	2,660	1,823	59.3	42.6	4.4	3.8
1961	42.0	149.7	463	56.3	14,370	68.1	2,639	1,786	57.2	41.2	5.4	4.5
1962	41.2	149.0	461	56.5	14,427	66.3	2,666	1,802	51.9	38.1	5.7	4.7
1963	41.0	149.6	465	56.8	15,131	70.3	2,833	1,965	53.9	41.3	5.9	4.9
1964	40.5	155.3	471	62.7	17,170	78.8	3,257	2,266	57.3	44.5	6.4	5.5
1965	40.3	155.5	464	65.9	18,224	84.2	3,764	2,638	63.5	49.5	7.0	5.9
1966	40.2	151.7	460	65.5	18,050	88.5	4,158	2,947	69.0	54.9	7.8	6.7
1967	40.3	150.8	455	69.6	18,832	91.3	4,425	3,174	74.4	58.6	8.7	7.5
1968	40.5	152.1	453	72.2	20,054	91.3	4,668	3,420	77.2	61.8	8.5	7.6
1969	40.4	151.0	447	77.0	21,463	97.1	5,185	3,865	81.6	66.5	9.0	8.0
1970	40.3	156.3	450	83.7	23,973	106.6	5,911	4,511	90.8	74.5	9.6	8.7
1971	40.3	156.3	453	87.3	25,206	114.6	6,340	4,974	91.4	78.0	9.9	9.3
1972	40.3	153.7	404	88.7	25,403	113.0	6,629	5,134	89.9	74.2	10.1	9.3
1973	40.5	152.0	372	92.5	26,582	118.6	7,503	5,685	94.4	81.5	10.1	9.8
1974	40.4	151.2	373	97.0	28,329	131.8	8,858	6,812	112.7	98.3	9.9	9.3
1975	40.6	150.6	361	103.5	29,792	135.5	9,393	7,374	107.8	97.9	9.6	9.0
1976	40.8	150.1	338	104.4	30,809	130.1	9,315	7,281	106.1	97.5	9.7	9.1
1977	40.1	151.1	332	109.9	31,995	122.9	9,349	7,330	108.1	96.3	9.6	9.1
1978	39.7	148.8	323	107.3	31,837	134.7	10,289	8,181	120.9	106.5	11.3	10.7
1979	39.4	147.5	375	111.1	32,056	135.4	10,724	8,619	127.5	110.7	13.1	12.5
1980	39.5	150.9	401	125.7	36,366	138.2	11,505	9,486	129.8	109.6	15.1	14.2
1981	39.1	147.1	412	127.3	36,468	137.3	11,381	9,747	125.0	107.9	17.3	16.4
1982	38.9	150.5	412	127.3	37,332	136.8	11,397	10,155	136.3	117.9	16.8	16.5
1983	39.1	147.8	413	124.1	34,494	128.0	10,333	9.327	1,419	124.8	16.8	17.2

(*a*) Particulars of train-kilometres, passenger journeys, freight tonnes carried, and freight net tonne-kilometres refer only to operations for which revenue is received. (*b*) At end of period.

TRANSPORT AND COMMUNICATION—*continued*

	ROAD TRANSPORT					COMMUNICATION					
	Tram trolley-bus and bus services(a)	*Motor vehicles on the register*					*Telephones*			*Broadcasting and television licences in force(b)*	
Year ended 30 June—	*Passenger journeys*	*Motor cars and station wagons*	*Commercial vehicles (c)*	*Motor cycles*	*Total motor vehicles (including motor cycles)*	*Postal matter dealt with(d)*	*Instruments in service (b)*	*Services in operation (b)(e)*	*Telegrams (f)*	*Broadcast listeners'*	*Television viewers'*
	mil.	'000	'000	'000	'000	mil. articles	'000	'000	mil.	'000	'000
1902 . . .	n.a.	. .	. .	. .	. .	(g)384	(g)36	(g)28	(g)8.2	. .	. .
1912 . . .	360	n.a.	n.a.	n.a.	n.a.	(g)698	(g)118	(g)96	(g)13.9	. .	. .
1922 . . .	569		102	38	139	778	259	196	16.8	(h)1	. .
1932 . . .	589	420	96	72	588	887	485	364	13.9	369	. .
1942 . . .	(i)1,067	451	250	50	751	1,124	739	531	26.1	1,320	. .
1952 . . .	1,019	1,028	588	155	1,770	1,482	1,301	939	29.8	1,961	. .
1959 . . .	778	1,784	755	110	2,649	1,951	2,056	1,491	22.5	2,264	578
1960 . . .	758	1,938	784	102	2,824	1,953	2,164	1,562	22.2	2,283	955
1961 . . .	726	2,070	800	93	2,963	2,048	2,266	1,631	21.8	2,256	1,217
1962 . . .	718	2,201	815	85	3,101	2,101	2,382	1,719	21.6	2,220	1,424
1963 . . .	712	2,377	832	77	3,286	2,202	2,523	1,812	21.8	2,240	1,655
1964 . . .	702	2,583	846	69	3,498	2,342	2,670	1,919	23.4	2,302	1,882
1965 . . .	685	2,792	858	65	3,715	2,443	2,811	2,010	24.3	2,358	2,045
1966 . . .	653	2,947	868	64	3,878	2,556	2,978	2,120	25.0	2,526	2,226
1967 . . .	621	3,104	880	69	4,053	2,683	3,178	2,235	25.6	2,538	2,405
1968 . . .	609	3,305	892	83	4,279	2,648	3,392	2,359	(j)23.4	2,580	2,519
1969 . . .	590	3,499	911	98	4,508	2,648	3,599	2,511	(j)23.3	2,630	2,649
1970 . . .	575	3,720	938	114	4,772	2,664	3,913	2,704	(j)23.2	2,670	2,758
1971 . . .	561	3,935	961	144	5,039	2,685	4,152	2,857	(j)21.2	2,699	2,845
1972 . . .	503	4,141	996	180	5,317	2,649	4,400	2,978	(j)20.2	2,758	2,939
1973 . . .	521	4,362	1,041	210	5,613	2,691	4,659	3,147	(j)20.4	2,814	3,013
1974 . . .	533	4,604	1,090	259	5,953	2,656	5,000	3,361	(j)20.7	(k)2,851	(k)3,022
1975 . . .	531	4,859	1,140	278	6,277	2,516	5,267	3,539	(j)18.5	. .	. .
1976 . . .	515	5,073	1,215	293	6,581	2,209	5,502	3,700	(j)12.9	. .	. .
1977 . . .	514	5,243	1,280	296	6,818	2,198	5,835	3,907	(j)10.4	. .	. .
1978 . . .	516	5,462	1,360	292	7,115	2,304	6,181	4,166	9.0	. .	. .
1979 . . .	(l)459	5,657	1,413	288	7,358	2,505	6,677	4,449	7.1	. .	. .
1980 . . .	(l)456	r5,801	r1,462	r310	r7,573	2,631	7,153	4,743	5.4	. .	. .
1981 . . .	(l)448	6,021	1,544	352	7,918	2,767	7,684	5,069	5.1	. .	. .
1982 . . .	(l)447	6,294	1,662	391	8,346	2,877	8,055	5,357	4.5	. .	. .
1983 . . .	(m)326	6,470	1,718	402	8,590	2,944	8,267	5,592	4.1	. .	. .
1984 . . .	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	3,035	8,329	5,851	3.7	. .	. .

(*a*) Government and municipal trolley-bus services ceased in August 1969. (*b*) At end of period. (*c*) Open and closed light commercial type vehicles; utilities and panel vans, rigid and articulated trucks, other truck type vehicles and buses. (*d*) Letters, postcards, letter-cards, newspapers, packets, parcels, and registered articles. (*e*) All single lines plus one half the number of duplex lines. Until the introduction of duplex services in December 1948, statistics of exchange lines and telephone services were identical. (*f*) Telegrams despatched to places within Australia and despatched to or received from overseas. (*g*) Year ended previous December. (*h*) Year 1923–24. First year licences issued. (*i*) Tram passenger journeys only before 1942. (*j*) Excludes telegrams received from overseas. These particulars are no longer available. (*k*) Television viewer and broadcast listener's licences were abolished on 17 September 1974. (*l*) Excludes details for South Australia, which are no longer separately identifiable from the railway operations of the State Transport Authority. (*m*) Excludes details for Victoria and South Australia.

PRIVATE FINANCE

NOTE ISSUE — BANKING

June—	Australian notes on issue (a)	Trading banks		Debits to customers' accounts(b)	Savings banks
		Advances (b)	Deposits (b)		Depositors' balances(c)
	$m	$m	$m	$m	$m
1959	790	2,007	3,362	1,432	2,783
1960	843	2,211	3,611	1,737	3,045
1961	839	2,238	3,600	1,654	3,155
1962	856	2,287	3,837	1,848	3,470
1963	869	2,465	4,064	2,028	3,940
1964	870	2,610	4,649	2,318	4,476
1965	862	2,955	5,038	2,653	4,887
1966	849	3,183	5,308	2,660	5,254
1967	938	3,548	5,614	2,964	5,765
1968	1,006	4,020	6,087	3,572	6,222
1969	1,107	4,384	6,706	4,035	6,707
1970	1,216	4,903	7,099	4,861	7,105
1971	1,369	5,317	7,431	5,668	7,635
1972	1,499	5,876	8,322	6,146	8,391
1973	1,758	7,755	11,013	8,035	10,238
1974	2,146	10,120	12,714	8,988	11,196
1975	2,557	11,205	14,937	10,095	(e)12,869
1976	2,921	12,576	16,955	13,368	14,823
1977	3,291	14,006	19,089	14,879	16,365
1978	3,670	15,683	19,746	17,624	18,046
1979	4,107	17,653	22,179	20,555	19,832
1980	4,586	20,386	25,643	24,730	21,261
1981	5,187	22,998	29,306	28,334	23,218
1982	5,837	(d)26,213	33,503	41,081	25,047
1983	6,362	28,649	36,044	42,417	30,006

(a) Last Wednesday in June. (b) Weekly average for month of June. (c) End of June. (d) Break in series due to a change in accounting procedures. The figure for June 1981 on the new basis is $23,071 million. (e) From June 1975 break in series due to a change in accounting procedures by one bank.

PUBLIC FINANCE

COMMONWEALTH GOVERNMENT — STATE — ALL PUBLIC AUTHORITIES

Year ended 30 June—	Consolidated revenue fund		Taxation collections	Consolidated revenue fund		Taxation collections	Government Final Consumption Expenditure	Public Gross Fixed Capital Expenditure(b)
	Revenue	Expenditure		Revenue	Expenditure			
	$m	$m	$m	$m	$m	$m	$m	$m
1902	23	8	18	56	58	5	..	..
1912	41	29	32	83	82	11	..	..
1922	128	128	99	170	175	36	..	..
1932	143	143	109	199	242	65	..	..
1942	420	420	362	305	299	115	..	..
1952	2,034	2,034	1,848	777	783	126	803	.806
1959	2,592	2,592	2,283	1,280	1,295	276	1,210	1,100
1960	2,877	2,877	2,519	1,399	1,404	320	1,319	1,214
1961	3,277	3,277	2,871	1,511	1,513	335	1,430	1,256
1962	3,283	3,283	2,858	1,609	1,617	394	1,528	1,380
1963	3,371	3,371	2,907	1,694	1,696	438	1,628	1,434
1964	3,809	3,809	3,247	1,829	1,829	496	1,827	1,586
1965	4,418	4,418	3,819	1,947	1,965	549	2,060	1,852
1966	4,879	4,879	4,221	2,094	2,119	591	2,335	2,066
1967	5,228	5,288	4,492	2,286	2,289	664	2,734	2,184
1968	5,760	5,760	4,952	2,463	2,468	753	3,112	2,369
1969	6,086	6,086	5,528	2,689	2,700	861	3,402	2,525
1970	6,979	6,979	6,380	3,010	3,028	962	3,683	2,757
1971	7,838	7,838	7,183	3,457	3,483	1,010	4,212	2,943
1972	8,688	8,688	7,939	4,035	4,050	1,414	4,800	3,299
1973	9,278	9,278	8,470	4,675	4,704	1,781	5,468	3,421
1974	11,976	11,976	10,917	5,481	5,514	Y,207	6,690	3,926
1975	15,391	15,391	14,211	7,109	7,187	2,792	9,229	5,566
1976	19,713	19,713	16,938	8,536	8,498	3,470	11,523	6,607
1977	21,436	21,436	19,806	9,796	9,790	3,973	13,488	7,011
1978	23,455	23,455	21,494	10,895	10,925	4,301	15,270	7,807
1979	25,484	25,484	23,466	(d)12,177	(d)12,172	(d)4,667	16,712	8,697
1980	29,627	29,627	27,548	(d)14,008	(d)13,954	(d)5,264	18,936	8,730
1981	35,052	35,052	32,714	(d)16,095	(d)16,150	(d)6,047	22,115	10,051
1982	40,593	40,593	37,991	(d)19,742	(d)19,799	(d)7,099	25,057	11,544

(a) At 30 June. Expressed in Australian currency equivalents at ruling rates of exchange. (b) Includes General Government, Public trading enterprises and Public financial enterprises. (d) Includes Northern Territory.

FOREIGN TRADE

	TOTALS		PRINCIPAL EXPORTS					
Year ended 30 June—	*Imports*	*Exports*	*Coal*(*a*)	*Wool*(b)	*Barley*	*Wheat*	*Petroleum products*	*Flour*(*c*)
	$m	$m	$m	$m	$m	$m	$m	$m
1902(*g*)	76	100	n.a.	30	n.a.	6	n.a.	n.a.
1912(*g*)	122	158	2	52	–	13	–	3
1922	188	256	2	96	1	57	–	11
1932	104	216	1	74	3	38	–	8
1942	348	338	1	112	–	9	–	8
1952	2,107	1,350	1	636	22	111	–	66
1959	1,593	1,623	5	578	34	77	15	26
1960	1,854	1,875	9	742	23	123	21	30
1961	2,175	1,938	15	649	29	205	24	38
1962	1,769	2,155	27	720	30	285	25	35
1963	2,163	2,152	22	733	10	217	29	31
1964	2,373	2,782	32	926	18	362	20	42
1965	2,905	2,651	51	781	18	297	11	37
1966	2,939	2,721	63	757	12	264	9	25
1967	3,045	3,024	72	840	22	361	30	23
1968	3,264	3,045	85	739	7	343	33	24
1969	3,469	3,374	117	827	18	258	26	22
1970	3,881	4,137	164	803	23	338	27	21
1971	4,150	4,376	195	593	51	433	38	20
1972	4,008	4,893	238	633	73	419	45	13
1973	4,121	6,214	291	1,262	39	273	41	12
1974	6,085	6,914	348	1,248	68	517	95	20
1975	8,080	8,726	721	815	187	1,028	145	49
1976	8,241	9,640	1,063	1,032	201	922	144	39
1977	10,411	11,652	1,282	1,587	223	863	190	26
1978	11,169	12,270	1,482	1,289	122	1,011	223	21
1979	13,752	14,241	1,524	1,592	148	794	295	14
1980	16,218	18,871	1,675	1,738	354	2,177	427	12
1981	18,965	19,177	1,967	1,845	243	1,729	517	15
1982	23,005	19,575	2,289	1,913	241	1,720	551	14
1983	21,806	22,123	3,073	1,807	131	1,440	1,153	14
1984*p*	24,061	24,767	3,328	1,967	499	1,814	1,226	8

PRINCIPAL EXPORTS—*continued*

							Ores and concentrates	
Year ended 30 June—	*Butter*(*d*)	*Hides and skins*	*Meats*	*Fruit*(*e*)	*Sugar*	*Lead and lead alloys unworked* (*f*)	*Iron*	*Other*
	$m	$m	$m	$m	$m	$m	$m	$m
1902(*g*)	3	3	5	–	–	n.a.	–	–
1912(*g*)	9	6	9	1	–	3	–	8
1922	16	6	11	6	–	4	–	1
1932	21	5	13	10	5	5	–	–
1942	16	12	28	11	5	14	–	2
1952	10	34	71	44	14	52	–	40
1959	51	47	194	73	64	38	–	33
1960	58	64	177	64	53	33	–	44
1961	41	54	145	61	70	33	–	54
1962	49	64	179	74	68	38	–	48
1963	49	74	226	73	91	35	–	44
1964	57	92	244	92	157	50	–	54
1965	67	80	286	86	113	61	1	77
1966	58	89	228	107	94	67	3	88
1967	65	86	286	95	100	54	46	100
1968	47	62	285	105	98	63	103	123
1969	41	75	291	92	122	66	180	143
1970	53	88	426	88	116	106	278	205
1971	48	71	438	100	150	30	374	231
1972	49	80	569	89	211	68	376	226
1973	62	189	867	117	250	83	439	239
1974	42	148	801	105	223	121	499	309
1975	34	102	450	91	645	130	707	423
1976	64	142	679	96	570	111	771	528
1977	38	239	896	99	637	166	902	674
1978	44	244	1,128	115	537	194	921	701
1979	49	351	1,722	141	448	260	968	727
1980	39	355	1,738	188	667	548	1,076	1,092
1981	30	191	1,594	209	1,146	321	1,117	1,965
1982	19	109	1,292	175	764	264	1,252	2,131
1983	41	133	1,585	201	557	302	1,487	2,206
1984*p*	58	161	1,309	177	621	310	1,619	2,080

(*a*) Anthracite, bituminous and sub-bituminous (except briquettes). (*b*) Includes greasy wool, slipe, wool scoured and carbonised, wool exported on skins. (*c*) Flour, plain white. (*d*) Includes concentrates and ghee. (*e*) Includes juices and fruit preparations. (*f*) Includes silverlead. (*g*) Year ended previous December.

FOREIGN TRADE—*continued*

PRINCIPAL IMPORTS

Year ended 30 June—	*Vegetable foodstuffs, etc.*	*Apparel, etc.*	*Oil, etc.*	*Metals, etc.*	*Rubber*	*Paper, etc.*
	$m	$m	$m	$m	$m	$m
1902(*a*)	7.2	21.8	2.4	15.6	1.0	3.2
1912(*a*)	7.4	32.4	3.2	28.0	2.8	5.2
1922	8.0	62.0	9.4	45.6	3.4	8.8
1932	5.2	30.8	11.0	14.8	1.6	8.8
1942	12.3	65.3	32.4	143.6	6.0	8.7
1952	50.1	407.1	174.9	768.8	68.0	137.5
1959	55.3	193.9	209.0	585.6	33.6	96.1
1960	54.9	222.1	213.5	710.1	48.5	103.8
1961	60.5	264.9	223.3	871.3	47.3	133.8
1962	56.3	208.4	219.8	630.3	35.5	109.6
1963	55.5	233.3	246.3	850.0	46.7	133.5
1964	61.6	234.0	251.5	947.1	51.2	141.7
1965	66.2	272.1	260.1	1,275.2	66.3	156.5

Year ended 30 June—	*Food and live animals*	*Beverages and tobacco*	*Crude materials, inedible, except fuels*	*Mineral fuels, lubricants and related materials*	*Animal and vegetable oils and fats*	*Chemicals*	*Manufactured goods classified chiefly by materials*	*Machinery and transport equipment*	*Miscellaneous manufactured articles*	*Commodities and transactions of merchandise trade not elsewhere classified*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1966	110	37	197	252	15	266	590	1,121	220	90
1967	118	38	206	247	15	297	586	1,144	243	110
1968	117	36	224	241	14	309	644	1,250	270	111
1969	128	44	228	252	13	328	688	1,328	298	116
1970	140	48	247	255	16	363	753	1,528	350	124
1971	158	50	235	190	18	410	867	1,644	403	125
1972	160	51	219	194	15	410	856	1,483	432	137
1973	163	52	268	175	13	424	893	1,489	475	119
1974	237	65	415	377	28	580	1,404	2,091	721	108
1975	302	75	390	724	43	786	1,496	3,059	961	125
1976	275	90	387	807	42	709	1,460	3,177	1,045	160
1977	455	99	471	996	54	926	1,891	3,980	1,354	105
1978	531	122	477	1,157	66	1,009	1,993	4,118	1,484	124
1979(*b*)	533	131	562	1,140	66	1,201	2,408	5,731	1,742	125
1980	655	142	700	2,098	81	1,579	2,900	5,656	2,005	226
1981	655	169	764	2,726	63	1,583	3,263	7,032	2,264	271
1982	732	173	769	3,002	80	1,828	3,856	9,357	2,681	291
1983	836	184	648	3,098	82	1,776	3,446	8,022	2,734	390
1984*p*	1,015	196	762	2,204	111	2,151	3,985	9,315	3,120	692

(*a*) Year ended previous December. (*b*) From 1 July 1978, imports have been classified according to the new A.I.C.C. which is based on the Standard International Trade Classification, Revision 2. The figures for 1979 on, are therefore not comparable to those for previous years.

NATIONAL ACCOUNTS

GROSS DOMESTIC PRODUCT (*a*)

Year—	*At current prices* (*c*)	*At constant prices* *1959–60 prices* (*b*)	*1966–67 prices* (*b*)	*1974–75 prices* (*b*)	*1979–80 prices* (*c*)
	$m	$m	$m	$m	
1961-62	14,968	14,337	17,151	..	..
1962-63	16,182	15,278	18,326	..	..
1963-64	17,965	16,431	19,624	..	..
1964–65	19,764	17,673	21,011	..	..
1965-66	20,772	17,934	21,459	..	..
1966-67	22,870	19,135	22,870	42,405	..
1967-68	24,409	..	23,786	43,911	..
1968-69	27,548	..	25,916	48,080	..
1969-70	30,527	..	27,526	50,818	83,353
1970-71	33,731	..	28,780	53,374	87,835
1971-72	37,691	..	30,080	55,874	92,366
1972-73	42,936	..	31,524	57,950	96,142
1973-74	51,447	..	33,058	60,864	100,462
1974-75	61,907	..	33,454	61,798	102,084
1975-76	72,991	..	..	63,391	104,603
1976-77	83,336	..	..	65,334	107,530
1977-78	90,476	..	..	65,575	108,398
1978-79	102,653	..	..	68,761	113,934
1979-80	115,759	..	..	70,527	115,759
1980-81	132,112	..	..	..	119,971
198-82	149,278	..	..	..	123,002
1982-83	163,600	..	..	..	121,580
1983-84	185,457	..	..	..	128,521

(*a*) For a description of the conceptual basis of these estimates, *see Australian National Accounts, Concepts, Sources and Methods* (5216.0). (*b*) *Australian National Accounts National Income and Expenditure*, 1982–83, (5204.0). (*c*) These figures are consistent with those published in *Quarterly Estimates of National Income and Expenditure, Australia, June Quarter 1984* (5206.0).

GROSS FIXED CAPITAL EXPENDITURE (*a*)

Year—	*At current prices* (*c*)	*At constant prices* *1953–54 prices*(*b*)	*1959–60 prices*(*b*)	*1966–67 prices*(*b*)	*1974–75 prices*(*b*)	*1979–80 prices*(*c*)
	$m	$m	$m	$m	$m	$m
1961-62	3,708	..	3,558	4,150	..	..
1962-63	4,014	..	3,837	4,465	..	..
1963-64	4,499	..	4,227	4,916	..	..
1964-65	5,250	..	4,789	5,559	..	..
1965-66	5,723	..	5,077	5,910	..	..
1966-67	6,009	..	5,159	6,009	11,104	..
1967-68	6,533	..	..	6,351	11,782	..
1968-69	7,322	..	..	6,873	12,767	..
1969-70	7,864	..	..	7,144	13,368	22,519
1970-71	8,724	..	..	7,462	14,095	23,606
1971-72	9,582	..	..	7,671	14,431	24,218
1972-73	10,155	..	..	7,644	14,369	24,009
1973-74	11,717	..	..	7,849	14,598	24,504
1974-75	14,193	..	..	7,729	14,293	23,813
1975-76	17,002	..	..	..	14,796	24,642
1976-77	19,045	..	..	..	14,733	24,706
1977-78	20,726	..	..	..	14,655	24,617
1978-79	23,284	..	..	..	15,339	25,681
1979-80	25,082	..	..	..	14,923	25,082
1980-81	31,504	..	..	..	..	28,389
1981-82	36,799	..	..	..	..	30,006
1982-83	37,180	..	..	..	..	27,003
1983-84	38,239	..	..	..	..	26,303

For footnotes *see* the above table.

INTERNATIONAL STATISTICS

(Source: *United Nations Demographic Year Book*, 1982)

POPULATION ESTIMATES: SELECTED COUNTRIES: MID YEAR (Millions)

	1974	*1976*	*1978*	*1980*	*1981*	*1982*
Argentina	25.05	27.72	26.39	27.06	28.08	28.44
Australia	13.60	13.92	14.25	14.62	14.86	15.18
Canada	22.40	23.03	23.49	23.96	24.21	24.63
China	881.99	942.80	969.61	999.91	1007.76	1,020.67
France	52.49	52.89	53.28	53.71	53.96	54.22
South Africa	24.92	26.13	27.68	29.29	30.13	31.01
United States	213.85	218.04	225.06	227.61	229.81	232.06
U.S.S.R.	252.21	256.76	261.25	265.54	267.70	269.99

POPULATION OF SELECTED CAPITAL CITIES

City proper		*Population*	*City proper*		*Population*
Beijeng (Peking)	(1970)	7,570,000	Moscow	(1982)	8,302,000
Bonn	(1981)	291,500	New Delhi	(1981)	272,000
Buenos Aires	(1980)	2,908,000	New York	(1980)	7,071,700
Cairo	(1976)	5,074,100	Ottawa	(1980)	304,500
Canberra	(1983)	255,900	Paris	(1975)	2,317,300
Lagos	(1975)	1,060,900	Rome	(1980)	2,914,100
London	(1981)	6,696,000	Tokyo	(1981)	8,334,860
Manila	(1980)	1,630,500	Washington	(1980)	638,400
Mexico City	(1979)	9,191,300	Wellington	(1981)	135,700

SELECTED COUNTRIES: EXPECTATION OF LIFE AT SPECIFIED AGES FOR EACH SEX: LATEST AVAILABLE YEARS

	Age in years				
Country	*0*	*20*	*40*	*60*	*80*
Australia—					
1983*p*					
Male	72.12	53.53	34.74	17.69	6.40
Female	78.73	59.78	40.36	22.31	8.19
China—					
1975–1980					
Male	62.10	n.a.	n.a.	n.a.	n.a.
Female	65.90	n.a.	n.a.	n.a.	n.a.
India—					
1961–1976					
Male	46.40	41.10	25.90	13.60	6.00
Female	44.70	39.90	25.40	13.80	6.00
Japan—					
1981					
Male	73.79	54.95	35.88	18.64	6.24
Female	79.13	60.00	40.55	22.16	7.45
Nigeria—					
1975–1980					
Male	45.90	n.a.	n.a.	n.a.	n.a.
Female	49.20	n.a.	n.a.	n.a.	n.a.
U.S.S.R.—					
1971–1972					
Male	64.00	n.a.	n.a.	n.a.	n.a.
Female	74.00	n.a.	n.a.	n.a.	n.a.

DIVORCE AND CRUDE DIVORCE RATES: SELECTED COUNTRIES: 1980–1982

	Number of Divorces			*Crude Divorce Rate**		
Country	*1980*	*1981*	*1982*	*1980*	*1981*	*1982*
Australia	39,258	41,412	44,088	2.7	2.8	2.9
Canada	62,019	67,671	n.a.	2.59	2.78	n.a.
Italy	12,037	11,109	n.a.	0.21	0.19	n.a.
Japan	141,689	154,221	n.a.	1.21	1.31	n.a.
Sweden	19,887	20,198	21,200	2.39	2.43	2.55
U.K. (England and Wales)	147,381	144,763	n.a.	2.99	2.92	n.a.
United States	1,182,000	1,219,000	1,180,000	5.19	5.30	5.08
U.S.S.R.	929,616	929,537	903,000	3.50	3.47	3.34

* Rates are the number of final divorces granted under civil law per 1,000 mid-year population.

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES

This list refers to special articles and other significant matter which have appeared in previous issues of the Year Book but which are not included, or are included in abbreviated form only, in the present issue.

The figures below indicate, respectively, the number and page of the Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given.

- **Aboriginal** population, **17,** 951
- Aborigines
  - Australian, former numbers and distribution of, **23,** 687
  - of Australia, **3,** 158
- Administrative government, **12,** 924
- Advisory Council of Science and Industry, **11,** 1195
- Aeronautical telecommunications, **44,** 422
- Agricultural and stock departments (conspectus), **14,** 1180
- Agricultural colleges and experimental farms, **11,** 392
- Air Defence
  - Development, **18,** 610
  - Operations since the 1939–45 War, **58,** 92
- Anatomy, Australian Institute of, **32,** 919
- Animal and Vegetable Diseases and Pests Acts (conspectus), **14,** 1066
- Apprenticeship legislation, **16,** 602; **23,** 767
- Artesian and sub-artesian basins, known (map), **48,** 273
- Australia's New Parliament House *see* Parliament House **68,** 51
- Australian books
  - 1961, select list of, **48,** 1166
  - 1966, select list of, **53,** 1231
- Australian Capital Territory (*see* 'Canberra', 'Federal Capital' and 'Seat of Government') (map), **39,** 367
- Australian Flag, **67,** 23
- Australian Institute of Sport, **68,** 684

- **Barley** for grain: distribution of acreage, 1962–63 (map), **50,** 1014
- Basic wage judgement, 1937, **30,** 564
- Black Coal in Australia, **66,** 395
- Board of Trade Advisory Committee, Report on Commercial Intelligence, **1,** 518
- Building stones
  - Australia, **9,** 446
  - Queensland, **12,** 89

- **Canberra**
  - fifty years of development, **49,** 122
  - past and present (*see also* 'Federal Capital' and 'Seat of Government'), **24,** 454
- Cancer in Australia, 1881 to 1910, **5,** 230
- Cattle: distribution, March 1963* (maps), **50,** 1050, 1082
- Census and Statistics
  - Act of 1905 (text), **1,** 8
  - creation of Commonwealth Bureau of, **1,** 11
- Census
  - of Papua and New Guinea, 1966, **53,** 141; **55,** 1164
  - The, **53,** 163
- Censuses early, **15,** 1083
- Chemistry, South Australian Department of, **14,** 1064
- Chinese in Australia, **18,** 951
- Climate, changes of, **7,** 56
- Climatology, bulletins of, **34,** 11

---

* *Also*—1955, No. 43, pages 909–10; 1948, No. 39, pages 905–6; 1938–39, No. 34, pages 453–4; 1924–25, No. 22, page 660.

Clothing and food rationing (1939–45 War), **36,** 1084
Coal mining, history of, **3,** 515
Coast-line of the Commonwealth of Australia, features, **1,** 60
Coinage
  Australian Mints, **52,** 675
  Decimal, **52,** 671
  Pre-decimal, **52,** 671
  Pre-federation, **51,** 812
Commercial and Industrial Bureau of the Board of Trade, **17,** 1037
Commonwealth
  Bank, **11,** 815
  Savings Bank, **10,** 789
Compulsory military training, **12,** 1001
Constitution Acts (conspectus), **13,** 928
Contingents, Australian-New Zealand and Sudan Campaigns, South Africa, China and 1914–18 Wars, **12,** 1019
Control of prices during and since the 1939–45 War, **37,** 458
Coolgardie water scheme, **6,** 576
Co-operation of producers and of consumers in Australia, **17,** 581
Copper-mining, history of, **5,** 498
Cost of living inquiry, 1910–11, **5,** 1167
Country Roads Board, Victoria, **15,** 526
Currency, decimal (*see* Decimal currency)
Currency, international, **13,** 1146
Customs Tariff, 1914, **11,** 603

Daylight saving, **36,** 1119
Decimal coinage, **15,** 719; **52,** 671
Decimal currency, **51,** 809; **52,** 671
Decimal Currency Committee, 1959, report summary of conclusions and recommendations, **49,** 835
Defence legislation, special (1914–18 War), **15,** 930
Designs, **12,** 1174
Development of telecommunications in Australia, **59,** 378
Diptheria, **16,** 1031
Disease, transmission by mosquitoes, **22,** 506
Disposals Commission, Commonwealth, **39,** 1289
Droughts in Australia, **45,** 51; **54,** 995

Education, primary—early history, **2,** 880
Electricity generation (maps), **39,** 1171
Electric power generation and distribution, **39,** 1149
Enemy Contracts Annulment Act 1915 (text), **8,** 1095
Enemy patents and trade marks, **13,** 1104
Eucalypts, Australian, chemical products of, **10,** 92
Eucalyptus timbers, Australian, **10,** 85
Exploration of Australia
  account, **2,** 20
  maps, **8,** 35

Factories and Shops, Acts and Regulations (conspectus), **16,** 540
Fauna of Australia, **2,** 111
Federal
  Capital City—map and designs for layout (*see also* 'Canberra' and 'Seat of Government'), **5,** 1139
  Capital Territory—structure and scenery of (*see also* 'Canberra' and 'Seat of Government'), **22,** 627
  movement in Australia, **1,** 17
Ferries in Australia, **25,** 199
Financial Agreement between Commonwealth and States (full text)
  as affected by further agreements to 3 July 1934, **31,** 21
  as affected by further agreements to 15 November 1944, **37,** 685
  summary of main provisions, **50,** 952

- Financial crisis (1929), **30,** 983
- Fisheries, Commonwealth Department of, **14,** 333
- Flora of Australia, **2,** 117
- Fodder plants, native Australian, **6,** 1190
- Food
  - and drugs inspection and sale, **12,** 1053
  - control, Commonwealth (1939–45 War), **35,** 921
- Forest
  - areas, characteristics of State, **6,** 446
  - fire protection, **55,** 965
- Forestry in Australia, **19,** 701
- Friendly Societies Acts (conspectus), **10,** 800

- **Geological**
  - history of Australia, salient features, **7,** 56
  - Map of Australia, **12,** 51
- Geology of Australia, **2,** 78
- German place names, changing of, **19,** 50
- Glacial action in Australia, past, **13,** 1133
- Gold
  - discovery of, **4,** 492
  - modes of occurrence and remarkable masses, **4,** 500
- Goulburn River Gravitation Scheme (map), **13,** 561
- Grasses and saltbushes of Australia, **9,** 84

- **Health** legislation and administration, public, **22,** 493
- Henderson, report by Sir Reginald (Naval Matters), **6,** 1067
- History of Australia, early, **1,** 44
- Home Nursing in Australia, history, **69,** 202
- Housing Division, Commonwealth, **38,** 1234
- Hydrology of Australia, **2,** 67

- **Income** taxes in Australia, **35,** 926
- Industrial hygiene in Australia, **18,** 522
- Infant mortality, Australia 1881–1910, rates of, **5,** 227
- Influenza epidemic of 1918–19, **13,** 1128
- Institute of Sport, *see* Australian Institute of Sport, **68,** 684
- Institute of Tropical Medicine, **15,** 1010
- Integrated Economic Censuses, Australia, 1968–69, **56,** 1041
- International Statistical Institute, 36th Session of the, **53,** 1225
- International Year of Youth, 1985, **69,** 244
- Interstate Commission, **13,** 1123
  - Tariff Reports, **9,** 1134
- Iron-mining, history of, **3,** 508
- Islands off the Coast of Australia, **5,** 51

- **Labour**
  - and Industrial Branch, functions, **7,** 992
  - laws relating to conditions of (conspectus), **16,** 538
- Lakes of Australia, **4,** 59
- Land
  - legislation and tenures (conspectus), **22,** 133; **38,** 111
  - settlement (war service) (*see* Settlement)
  - tenure, early history, **4,** 235
- Landsat Satellite, **64,** 722
- Language Usage Survey, May 1983, **69,** 98
- League of Nations, **35,** 920
- Lend-Lease
  - and mutual aid between Australia and the United States, **36,** 331
  - terms of settlement, **37,** 393
- Life assurance legislation, Australian (conspectus), **18,** 1041
- Lighthouses and lights, **2,** 668
- Loans to farmers, Government, **12,** 383
- Local option, and reduction of licences, **22,** 1005

- *Manufactures Encouragement Act* 1908–1912, **11,** 451
- Marine
  - and fresh water fisheries of Australia, **17,** 752
  - War Risks Insurance Board, Commonwealth, **37,** 604
- Marketing of Australian Commodities, legislation, **36,** 1102
- Masculinity of population, 1796–1907, **2,** 163
- Metal Exchange, Australian, **12,** 471
- Meteorology, history of, in Australia, **3,** 79
- Military
  - cadets, anthropometrical measurements of, **11,** 1203
  - system in Australia prior to Federation, **2,** 1075
- Mineral springs in Australia, **6,** 55
- Mining aid to, **5,** 527
- Mints, Australian, **52,** 675
- Monetary and banking systems, Royal Commission on, summary of recommendations, **31,** 1010
- Mortality
  - Australian population, census of 1933, **29,** 928
  - rates of, methods of measuring, **12,** 229
- Motor vehicles, census of
  - 31 December 1962, **50,** 591
  - 31 December 1955, **44,** 415
- Mountain systems of Australia, **3,** 59
- Murray River Waters Conference, **7,** 1059
- Mutual Aid between Canada and Australia, **36,** 336
  - termination, **37,** 394

- **National**
  - Health and Pensions Insurance Scheme, **31,** 968
  - Service Training Scheme, **46,** 1097
- Naval defence, historical outline, **2,** 1084
- Navigation and shipping legislation, **17,** 1053
- Northern Territory, historical sketch, **6,** 1113
- Note issue
  - Australian, **52,** 677
  - Decimal, **53,** 678
  - Statutory Reserve against, **55,** 614
- Nutrition, Commonwealth Advisory Council on, **32,** 222

- **Oats** for grain: distribution of acreage, 1962–63 (map), **50,** 1015
- Oil exploration in Australia, **48,** 1094
- Orographical map of Australia, **11,** 49
- Orography of Australia, **3,** 59
- Ottawa Conference, **26,** 868

- **Pacific** Islanders in Australia, **19,** 902
- Papua and New Guinea
  - Census of, 1966, **53,** 141
  - Territory of (map), **39,** 368
- Paliament House—Australia's new Parliament House, **68,** 51
- Parliament of the Commonwealth of Australia, The, **49,** 65
- Parliamentary and departmental reports and papers, **13,** 4
- Pasture improvement, **49,** 1001
- Patents, **12,** 1170
- Penological methods, improvement of, **5,** 922
- Petrol rationing (1939–45 War), **37,** 178
- Pigs: distribution, March 1963* (map), **50,** 1083
- Plains and peneplains of Australia, **12,** 82
- Poisons, sale and custody of, **22,** 496

---

* *Also*—1955, No. 43, page 912; 1948, No. 39, page 908.

- Population of Australia
  - characteristics of the development of, and the effect of the 1914–18 War, **13,** 1126
  - increase of (graph), **35,** 268
  - influences affecting increase and distribution of, **22,** 906
  - sex distribution, **22,** 910
- Ports of Australia, **3,** 669
- Postal Services in early days, **5,** 754
- Post-censal adjustment of population estimates, 1901–11, **6,** 112
- Post-war control of shipping, and developments, **39,** 147
- Preferential
  - tariffs of the British Empire, **11,** 601
  - voting, **6,**1182
- Premiers'
  - Conference
    - 1914, **7,** 1055
    - 1915, **8,** 1081
    - 1916, **11,** 1191
    - 1916–17, **12,** 1194
    - 1918, **14,** 1061
  - Plan, **30,** 992
- Publications
  - Issued by the Commonwealth Statistician, 1906–20, **13,** 2
  - State, 1906–20, **13,** 6

- **Railways**
  - non-conformity of gauge (*see also* Standardisation of Railway gauges, and Unification of gauge (railways)), **15,** 534
  - private, **14,** 611
- Rainfall
  - from 1860, **15,** 53
  - wettest months of year (map), **17,** 69
- Recent Decline in Australian Fertility, **65,** 114
- Reconstruction Training Scheme, Commonwealth, **39,** 240
- Referendums, Commonwealth
  - Communism, 1951, **40,** 56
  - Industry and commerce and essential Services, 1926; State Debts, 1928; Aviation and marketing 1937, **31,** 67
  - Post-war Reconstruction and Democratic Rights, 1944, **36,** 61
  - Post-war Reconstruction and Democratic Rights, 1944; Social Services, Organised Marketing and Industrial Employment, 1946, **37,** 64
  - Post-war Reconstruction and Democratic Rights, 1944; Social Services, Organised Marketing and Industrial Employment, 1946; Rents and Prices, 1948, **38,** 83
  - Senate Elections, 1906; Finance and State Debts, 1910; Legislative Powers, 1911; Monopolies, 1911; Legislative Powers and Monopolies, 1913; Military Service, 1916; Military Service, 1917; Legislative Powers and Monopolies, 1919, **18,** 87
  - summary to 1937, **35,** 60
  - summary to 1951, **41,** 67
- Registration of births, marriages and deaths, and legitimations Acts (conspectus), **13,** 212
- Rent control (1939–45 War), **37,** 1197
- Research in Australia, outline of, **52,** 645; **53,** 650
- Returned Soldiers' Settlement Acts, 1914–18 War (conspectus), **13,** 1018
- Rivers of Australia, **2,** 67
- Roads, history of, in Australia, **60,** 385

- **School** children in Australia and other countries (comparison), **5,** 1132
- Science and technology in Australia, **49,** 781
- Scientific societies, **22,** 454
- Seat of Government, **4,** 1134
- Seismology in Australia, **4,** 82
- Settlement
  - in Australia, climatic factors influencing, **11,** 84
  - of returned service personnel: 1939–45 War, **37,** 113
    - soldiers, 1914–18 War, **18,** 187

Settlers, advances to (*see also* loans to farmers, government), **22,** 179
Sheep: distribution, March 1963* (map), **50,** 1049
Shipping and shipbuilding activities, Commonwealth Government, **22,** 256
Snowy Mountains Scheme, **42,** 1103
Soil conservation, **49,** 1003
Soils of Australia, **52,** 873
Softwood plantations, **59,** 880
Sport, Australian Institute of, *see* Australian Institute of Sport, **68,** 684
Standard times in Australia, **39,** 65
Standardisation of railway gauges (*see also* Railways, non-conformity of gauge, and Unification of gauge (railways)), **53,** 440; **56,** 353
Statistical Conference, 1906, **1,** 12
Statisticians, Third Conference of British Commonwealth, 1951, **39,** 1320
Statistics, development of State, **1,** 1
Sugar bounties, **6,** 394
Suicide in Australia, **5,** 240
Superannuation
    Funds of the Parliaments of the Commonwealth and of the Australian States as at 30 June 1949 (conspectus), **38,** 91; **44,** 72
    schemes, private, **44,** 776
Sydney Harbour colliery, **6,** 504
Sylvicultural nurseries and plantations, **6,** 451

Taxation Acts (conspectus), **14,** 722
Technical Training Scheme, war time, Commonwealth, **39,** 240
Telecommunications in Australia, development of, **59,** 378
Tenure of land by aliens, **18,** 190
Tides of Australia, **31,** 972
Timbers, principal Australian, commercial uses, **6,** 454
Tin-mining, history of, **3,** 504
Topography of Australia, **20,** 75
Tourism in Australia, **69,** 633
Trade
    marks, **12,** 1173
    of the individual States, **4,** 664
    prices, and house rents—control of, **22,** 530
    unionism in Australia, historical development, **9,** 937
Trans-Australia Railway, **11,** 662
Travel and tourism, **52,** 1158
Treasurer's Conference, 1914, **7,** 1061
Tuberculosis in Australia, 1881 to 1910, **5,** 230

Unification of gauge (railways) (*see also* Railways, non-conformity of gauge, and Standardisation of railway gauges), **14,** 563
    conference, **15,** 535
Universities, historical sketch, **2,** 898

Volcanic action in Australia, past, **14,** 46

Wages
    and conditions of employment (conspectus), **16,** 567
    and Terms of Contract, Regulation, **9,** 959
    real-international comparison of, **22,** 542
War
    1914–18
        Australian troops (enlistments, casualties, decorations, etc,), **16,** 628
        Settlement of returned soldiers, **18,** 187
    1939–45
        Account of part played by Australian Military Forces and chronology, **36,** 1016
        Australian services (enlistments, casualties, decorations, etc.), **37,** 1155
        Settlement of returned service personnel, **37,** 113

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* *Also*—1954–55, No. 43, page 833; 1947–48, No, 39, pages 977–8; 1938–39, No, 34, page 451; 1924–25, No. 22, page 695.

- *War*
  - *Gratuity Act*
    - 1920, **15,** 930
    - 1945–1947, **41,** 999
  - *Precautions Act* 1914–1916 and War Precautions Regulations 1915, **11,** 1034
- Water policy, resource needs to year 2000, **69,** 321
- War-time
  - control of shipping, **36,** 121
  - marketing of primary products, **36,** 1105
  - Technical Training Scheme, **39,** 240
- Water in Australia, the conservation and use of, **37,** 1096
- Water resources, Australian, some recent developments in the measurement of, **51,** 228
- Wealth, private, of Australia
  - 1925, **21,** 415
  - 1929, **26,** 471
- Weights and Measures Acts (conspectus), **15,** 1038
- Wheat
  - bulk handling of, in Australia, **39,** 954
  - for grain: distribution of acreage, 1962–63* (map), **50,** 1013
- Wholesale price indexes, **55,** 1254
- Wimmera-Mallee Gravitation Channel System (map), **13,** 362
- Wireless telegraphy, **15,** 628
- Wool Industry, Inquiry into, **29,** 644
- Workmen's Compensation Acts (conspectus), **22,** 1028
- **Youth,** International Year, 1985, **69,** 244

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* *Also*—1955, No. 43, page 911; 1948, No. 39, page 907; 1938–39, No. 34, page 452; 1924–25, No. 22, page 659.

GENERAL INDEX

The illustrations contained in this issue are listed under the various chapters in the Contents (pages v-x).

- **Aboriginal**
  - affairs, responsibility for, 168
  - Aboriginal Art Board, 609
  - community services, 641
  - Conference, National, 168
  - Development Commission, 168
  - education, 648
  - heritage and culture, 619
  - land and land rights, 619, 640
  - legal status, 639
  - policy, 639
  - population, 82
  - school children, 229
  - society, traditional, 1
  - Studies, Australian Institute of, 604
- Aboriginals, 72-73
  - special programs for, 641
  - and Torres Strait Islanders, 82
- Accidents
  - Industrial, 152
  - road traffic, 452
- Accommodation
  - crisis, for families, 412
  - for the aged, 167
  - tourist, 631
- Accounts
  - National, 533-541
- Acts of the Parliament
  - Commonwealth, 38
- Administration of the law, 210
- Administration of minerals, 341-344
- Administrative Appeals Tribunal, 215
- Adult
  - Migration Education Program, 240, 655
  - Wage Subsidy Scheme, 157
- Advanced Education
  - Australian Council on, awards in, 227
  - Colleges of (*see* Colleges of Advanced Education)
- Advances to home purchasers, 416
- Aerial agriculture, 301-302
- Aerodromes, 457
- Age at death, 89
- Age distribution of the population, 78-80
- Age pensions
  - associated payments, 161-162, 163-164
  - eligibility criteria, 161
  - income test, 161
  - rates of, 161
- Age pensioners
  - age of, 162
- Age of population, 78
- Age specific birth rates, 87
  - specific death rates, 89
- Age and disabled persons homes, grants for, 166-167
- Aged or Disabled Persons Homes Act, 166
- Agricultural
  - Bank of Tasmania, 418
  - Census, 247
  - commodities produced, gross value of, 251-252
  - commodities produced, indexes of, 252-253
  - enterprises, 248, 249
    - estimated value of operations, 249
    - Financial statistics, 250-251
  - establishments, 249-250
    - area, 257
    - employment, 303
- Agricultural—*continued*
    - irrigation, 302
  - finance survey, 248
  - industries
    - development, 247
    - improvements, 300-303
  - machinery, 303
- Agriculture
  - aerial, 301-302
  - statistical collections, 248
- Aid, 65
  - food, 68
  - legal, 218-219
  - multilateral, 68
  - training, 67
- Air services
  - freight, 474
  - internal, 456
  - international, 455
- Air transport, 454-458
  - accidents involving casualties, 458
  - international organisations, 454
  - registrations, licences, etc., 458
- Aircraft
  - of the Royal Australian Air force, 51
- Airline
  - passengers, internal, 457
  - services, domestic, 457
- Airways facilities, 457
- Airports
  - National consultative council, 428
- Alienation and occupation of Crown Lands, 256
- Allowances
  - family, 165
- Alumina industry, developments, 369
- Animal quarantine, 191
- Animals, live, exports, 288
- Anniversaries, Australian, 620
- Antarctic
  - Division, 601
  - Research Expeditions, Australian National, 601
  - Territory, Australian, 8, 65, 659
  - Treaty, 604
- Antarctica, 65
- Anti-dumping duties, 542, 543
- ANZUS, 39, 62
- Apparent consumption of
  - foodstuffs, 253-255
  - fruit, 274
  - vegetables, 276
- Appeals to the High Court, 211-212, 214
- Appeals to the Privy Council, 212, 214
- Apple and Pear
  - Corporation, The Australia, 275
  - Export Charge, 521
  - Levies, 521
- Apprentices, characteristics of, 126
- Archives, 614
- Area
  - of agricultural establishments, 256-257
  - of Australia, 9-10
- Army, Australian (*see* Australian Army)
- Arrivals and departures, from/to overseas, 94-98, 628-630
- Art bank, 610
- Articles produced, 373-377

Artificial limb and appliance service, 174
Arts
    Aboriginal, 609
    Council of Australia, The, 611
    and crafts, 609
    design, 609
    festivals, 611
    financial assistance to the, 610
ASEAN, 58, 59
    trade with, 563
Ashmore and Cartier Islands, 5, 637
Assessable income for taxation
    allowable deductions, 504
    individuals, 504
Assistance
    for Long-term Unemployed Adults, 157
    Adult Wage Subsidy Scheme (AWSS), 157
    to shipbuilding, 430
Astronomy, optical, 605
Atomic energy, 347
Australia
    annexation, 2
    area, 9-10
    colours, 38
    Council, The, 608-610
    Council, government funds allocated to, 609
    discovery, 1
    exploration, 3
    external territories, 7
    Marriage Act 1961, 90
    geology of, 341
    land forms, 9
    Museum, 616
    national anthem, 38
    pre-history, 1
    standard times, 10
Australian
    Academy of Science, 589
    Academy of Technological Sciences, 589
    Administrative Decisions (Judicial Review Act), 215
    agricultural industries, regulation of, 303
    fruit industry, regulation of, 276
    Aid Program 1984-85, 65
    Alps, 16
    Anniversaries, 620
    Antarctic Territory, 65, 659
    Apple and Pear Corporation, 275
    Archives, 614
    Army, 49-50
        equipment, 50
        higher organisation of, 49
        training, 49
    Atomic Energy Commission, 341, 347, 391, 602
    Building Research and Development Advisory Committee, 590
        mineral industry research, 347
    Broadcasting Tribunal, 467
    Capital Territory, 651
        adult migrant education, 655
        agricultural, pastoral and secondary industry, 653
        apprenticeship training, 655
        Commercial practices, 653
        Commissioner for Housing Loan, 419
        continuing education, 655
        education, 226, 654
        electricity supply, 401
        federal authority outlay on education, 242
        finance, 656
        forestry, 652

Australian—*continued*
        further education, 654
        general description, 651
        housing, 651
        housing loans, 419
        housing schemes, 415
        irrigation, 340
        land, 652
        municipal services, 652
        production, 652
        sale of government houses, 415
        schools, 654
        tourism, 656
        transfer to the Commonwealth, 6
        transport and communication, 653
        water conservation, 340
    Conciliation and Arbitration Commission, 134
    Council for Educational Research, 227
    Council on Awards in Advanced Education, 227
    Customs service, 571
    Day, 621
    Dental Standards Laboratory, 190
    Drug Evaluation Committee, 190
    Education Council, 227
    Elizabethan Theatre Trust, 611
    Export Commodity Classification, 114, 553
    Federal Police, 219
    Film Commission, 612
    Forestry Council, 305
    Government Analytical Laboratories, 590
    Health Services Council, 188
    Health Surveys, 197
    Heritage Commission, 619
    Import Commodity Classification, 113, 553
    Industrial Research and Development Incentives Scheme, 588
    Institute of Aboriginal Studies, 604
    Institute of Criminology, 224, 604
    Institute of Marine Science, 601
    Institute of Multicultural Affairs, 604
    Institute of Sport, 626
    Law Reform Commission, 211
    Legal Aid Office
        criteria for provisions of aid, 218-219
        functions of, 218-219
        locations of offices of, 218-219
    Manufacturing Council, 589
    Marriage Act 1961, 90
    Meat and Livestock Corporation, 289
        functions of, 289
    Meat Board, 289
    Mineral Development Laboratories, 347
    Missions Overseas, 70
    National Antarctic Research Expeditions, 601
    National Commission, 226
    National Gallery, 614
    National Library, 592
    National Trusts, 620
    notes on issue, 470
    Offsets Program, 57
    Overseas Projects Corporation, 545
    Patent Information Service, 591
    Postal Commission, 458-462, 497
        employment in postal services, 460
        mail delivery network, 460
        postal articles handled, 461
        revenue and expenditure, 459
        special services, 462
    production of processed vegetables, 272
    Radiation Laboratory, 189
    registered trading vessels, 434

- Australian—*continued*
    - Research Grants Scheme, 588
    - Resources Development Bank Limited, 478
    - Road Research Board, 453
    - Science and Technology Council, 589
    - Shipping Commission, 430, 497
    - Sports Commission, 627
    - Standard Commodity Classification, 365, 553
    - Standard Industrial Classification, 112, 113, 350, 365, 366, 553
    - Stevedoring Industry, 431
    - Stock Exchanges, 492
    - Telecommunications Commission, 462, 497
        - functions of, 462
        - revenue and expenditure, 462
    - Territories, 637-663
    - Tourist Commission, 631
    - trading vessels, 434
    - Transport Advisory Council, 427
    - War Memorial, 616
    - Water Resources Council, 332, 590
    - Wheat Board, 259, 260, 261
    - Wool Corporation, 290, 292-293
        - functions of, 292-293
- Authorised money market corporations, 481
- Authorised short-term money market dealers, liabilities, assets and interest rates, 482
- Average unit gross values, 251
    - of commodities produced, indexes of, 252
- Average weekly earnings, 136-137
    - Full-time, non-managerial employees, 137
- Aviation, 454
    - activity, 454
    - Industry Advisory Council, 428
- Award Rates of Pay Indexes, 134

- **Baas-Becking** Geobiological Research Laboratory, 347
- Bacon
    - ham and canned meat, export of, 288
- Balance of payments, 577-583
    - capital account, 580, 582
    - current account, 579, 581
    - description of, 577
- Balance of trade, 554
- Ballet, 611
- Bankruptcy, 225
    - Federal Court of, 213
- Banks, 472-478
    - savings, 477
    - trading, 474
- Barley, 265
    - Boards, 265
        - for grain
            - area cropped, 265
            - exports, 265
            - production, 265
    - marketing of, 265
- Basic Nursing Home Benefit, 183
- Bauxite and alumina industry, developments in, 359
- Beef, 289, 290, 291, 292 293,
- Beekeeping, 298-299
- Beeswax exports, 304
- Belgium-Luxembourg, overseas trade with, 563
- Benefits
    - medical, 182
    - non-wage, 141-142
    - sickness, 164
    - special, 164
    - unemployment, 164
- Bilateral
    - aid, 66
    - trade arrangements, 547
- Biological Resources Study, 622
- Biological Standards Laboratory, National, 190
- Biomass, 393
- Birth expectations
    - order of nuptial confinements, 86
    - rates
        - age specific, 87
        - crude, 85
- Births, 84-88
    - crude rates of, 85
    - live, 86
        - nuptiality, 85-86
        - sex, 86
- Black coal, 360, 382, 385
- Boats used in fishing, 310
- Borrowing, public sector, 529
- Botanical gardens, 632, 624
- Bounties
    - on manufacture, 362
- Broadcasting, 466
    - Service Overseas, 468
    - services, 467
    - stations, 468
- Brown coal, 382, 385
- Brussels Nomenclature, 517
- Budget, receipts and outlay, 496
- Building
    - activity, 419
    - Research and Development Advisory Committee, 590
- Building societies, 478-480, 492
- Building, value of, 422
- Bureau of
    - Agricultural Economics, 604
    - Industry Economics, 363
    - Meteorology 26, 392, 591
    - Mineral Resources, 345
        - Geology and Geophysics, mineral industry research by, 348
    - Transport Economics, 428, 604
- Bus services, 448
- Butter
    - production and exports, 298

- **Canada**, trade with, 563
- Canned fruit, 276
- Capital assistance grants to the States, 500
- Capital expenditure, 539
- Capital Territory Health Commission, 181
- Cargo
    - container, 433, 438
    - discharged and loaded, 439-441
- Cartier and Ashmore Islands, 637
- Cash management trusts, 485
- Cattle, 281-282
    - numbers, 281-282
        - milk, 295
- Causes of death, 194-197
- Census
    - agricultural, 247
    - manufacturing, 366-367, 378
    - retail, 379
- Censuses economic, 378
- Central Grain Research Laboratory, 261
- Cereal grains
    - a perspective, 258-259
    - farmstocks of, 279
    - summer, 258
    - winter, 258

- Cheese
  - production and exports, 298
- Chief of Defence Force Staff, 39
- Chiefs of Staff Committee, The, 39
- Child welfare, 213
- Children
  - joint custody of, 213
  - of the marriage, 94
- Children's
  - rights and welfare, 213
- Children's Services Program, 167
- China, trade with, 564
- Christmas Island, 8, 662
  - economy, 662
  - education, 662
  - history administration, 662
  - transport and communication, 662
- Citizenship, persons granted Australian, 101
- Civilian
  - employees of governments, 125
  - labour force, 118-121
- Climate, general, 11
- Climatic controls
  - May-October, 11
  - November-April, 11
- Climatic discomfort, 25
- Clouds, 21
- Coaching Accreditation Scheme, National, 625
- Coal
  - black, 360, 385
  - Board
    - Joint, 344
  - brown, 385
  - Consultative council, 384
  - reserves, 382
- Coarse grains, 264
- Coastal radio stations, 466
- Cocos (Keeling) Islands, 8, 661
  - history and administration, 661
  - transport and communication, 661
- Coin issued, value of, 470
- Collection of trade statistics, 550-554
- Colleges of Advanced Education, 234-237
  - student enrolments, 236
  - students commencing courses, 235
  - students completed courses, 235
  - teaching staff, 237
  - types of courses, 232
- Colombo Plan,
  - scientific training, 605
- Colours of Australia, 38
- Commercial
  - broadcasting stations, 466
  - exploitation of fisheries resources, 308
- Commissioner for Housing Loan, Australian Capital Territory, 419
- Commission of Inquiry into Transport to and from Tasmania, 431
- Commodity Classification, Australian Standard, 365, 553
- Commodity Classification, Australian Export, 553
- Commodity Classification, Australian Import, 553
- Commonwealth
  - arts support, 610
  - authorities
    - advances to the States, 499, 501
    - cash benefits to persons, 185-186
    - extensive care benefit, 183
    - grants to the States, 499-501
    - outlay, purpose of, 499
    - receipts, 498, 501
      - and outlays, 498-501

- Commonwealth—*continued*
    - Specific purpose grants, 499
  - Australian establishment, 6
  - Bank of Australia, 471
  - Banking Corporation, 497
  - Development Bank of Australia, 478
  - Government
    - assistance to
      - forest operations, 305
      - welfare organisations, 166-167
    - Budget, 495-497
    - the Community Health Program, 187
    - deficit, financing of, 497
    - Departments, 38
    - expenditure on social security services, 162-167
    - expenditure on tuberculosis, 184
    - grants to
      - the International Agency for Research on Cancer, 188
      - the National Heart Foundation of Australia, 188
      - public health organisations, 187-188
      - the Red Cross Blood Transfusion Service, 187
      - the Royal Flying Doctor Service, 187
      - the Health Program, 187
      - the World Health Organisation, 188
    - health advisory organisations, 189-190
    - health benefits, 181-186
    - Medical benefits, 182
    - Nursing benefits, 183-184
      - basic home, 183
      - domiciliary care, 184
      - extensive care, 183
      - financing arrangements, 183
      - Home Nursing Subsidy Scheme, 184
    - Rehabilitation Service, functions of, 165-166
    - responsibility for education in the Australian Capital Territory, 226
    - securities, 529
    - subsidies and grants to the States
      - Home Nursing Subsidy Scheme, 184
      - medicare, 186-187
      - for paramedical services, 187
    - taxation, 501-516
  - Institute of Health, 189
  - legislation, 38
    - for economic management, 471
    - for financial institutions, 472
  - Ombudsman, 215
  - Parliament, The, 32
  - Parliament
    - annual salaries and allowances, 37
    - elections, 33-35
      - House of Representatives, 34
      - Senate, 34
    - legislation, 38
    - numbers in, 33
    - qualifications for franchise (voting), 32
    - qualifications for membership, 32
  - Rehabilitation Service, functions of, 165-166
  - relations with, 59
  - responsibilities in education, 226
  - Scientific and Industrial Research Organisation, 305, 307, 310, 322, 323, 344, 348, 364, 384, 587, 588, 590, 592, 600, 617
    - activities of, 600
    - Division of Building Research, 590
    - functions of, 600
    - mineral industry research, 348
  - Serum Laboratories, 188-189

Communicable diseases, 190-192
Communication, 427, 458-469
Community
    Arts, 609
    Employment Program (CEP), 157
    Health Program, 187
Companies
    income tax assessment, 515
    insurance, 485, 487
    pastoral finance, 484
Compulsory education, 228
Concessional tax rebates, 507
Conciliation and Arbitration Commission, Australian, 134
Conference of Director-General of Education, 227
Confinements, 86
    nuptial, 86
Coniferous timber, 305
Conservation, 621-623
    of places and articles of national importance, 621
    soil, 590
Consolidated Revenue Fund, 495
Constant prices estimates at, 536
Constitution, The, 8, 39, 168, 226, 471, 495, 542, 651
    Alteration (Aboriginals) Act 1967, 72
    financial provisions of, 495
Construction (other than building), 423
Construction industry survey, 424-426
Consular, 69
Consumer affairs, 218
Consumer price index, 103-106
    'basket' of goods, 103
    changes in quality of goods, 104
    earlier series, 104
    index population, 103
    periodic revision of, 104
    weighting pattern, 103-104
Consumer (retail) prices, index numbers of, 108
Consumption of
    dairy products, 298
    meat and meat products, 289
Container cargo, 438
Contents of metallic minerals produced, 353
Continental Shelf (Living Natural Resources) Act 1968, 309
Control of
    mineral exploration, 341-343
    mineral exports, 343-344
    petroleum exploration
        off-shore, 342-343
        on-shore, 342
    shipping, 428
Controls on imports, 542
Copper industry, development in, 359-360
Copyright, 225
Coral Sea Islands, 8, 663
    administration, 663
    history, 663
Correctional treatment of offenders, 223
Correspondence tuition schools, 230
Cotton, 269
    area cropped, 269
    exports, 269
    production, 269
Council
    Aboriginal Development, 168
    Defence, The, 40
    Tertiary Education Commission, 602
Counselling, 213
    services for marriage problems, 213
Courses available at
    Colleges of Advanced Education, 234
    Universities, 237
Crafts Board, 609
Credit Unions, 480
    income and expenditure, 480
    liabilities and assets, 480
Cremations, 196-197
Crime
    in Australia, 220-223
    reported to police, 220-222
Crimes
    breaking and entering, 221
    fraud, 221
    homicide, 221
    motor vehicle theft, 221
    rape, 221
    robbery, 221
    serious assault, 221
Criminology, Australian Institute of, 224, 604
Criminological research, 224
Crisis accommodation for families program, 412
Crops (*see also* specific crops), 257-258
    area, 257-258
    gross value, 258
    production, 258
Crown Lands, 256
Crude
    birth rate, 85
    oil, 387
    Oil Allocation Scheme, 389
    Pricing of Australian, 389
Crustaceans, 308, 312
    processing of, 312
    production, 311
Cultural
    activities, 608
    organisations, 608-618
    relations, 65
Currency, 470
Current defence policy, 39
Custody and maintenance, 213-214
Customs
    duties, 517, 570
    service, 543, 571
    Tariff, 542-544
Cyclones, tropical, 11

Dairy Industry
    developments in, 295
    economic position, 296
    government assistance, 296
Dairy products
    consumption, 298
    exports, 297-298
Dairying, 295-298
    Research and Promotion Levy, 521
Dams and reservoirs, 319-320
    New South Wales, 319
    Northern Territory, 320
    projected, 320
    Queensland, 319
    Tasmania, 320
    under construction, 320
    Victoria, 319
    Western Australia, 320
Darwin Community College, 648
Death
    age at, 89
    rates
        age-specific, 88-89
        crude, 85

- Deaths
  - causes of, 194-196
  - perinatal, 195-196
  - suicides, 195
- Decentralisation, 362
- Defence, 39
  - aerospace, 56
  - budget allocations, 54
  - capital facilities, 44
  - Committee, 40
  - co-operation, 45
  - Department of, 39
  - employment in, 44
  - Expenditure, 41
  - Force
    - activities overseas, 46
    - Australian Army, 49-50
    - Development Committee, 40
    - equipment, 40
    - permanent, 44
    - Royal Australian Air Force, 50-52
    - Royal Australian Navy, 47-49
    - Staff, Chief of, 39
  - function, expenditure, 41
  - industry, 41
  - machinery, higher, 40
  - manpower, 44
  - organisation, higher, 39
  - oriented activities
    - Department of Defence Support, 54-57
      - finance for, 54
  - policy, current, 39
  - production, 55-56
    - aircraft, guided weapons and electronics supply, 56
    - munitions supply, 55
  - purchasing, 57
  - representation overseas, 46
  - reserve forces, 45
  - Review, 40
  - Science and Technology Organisation, 52, 602
  - service homes, 410
  - *Service Homes Act 1918*, 410
  - shipbuilding, 56
  - supply and support, 43
- *Delivered Meals Subsidy Act 1970*, 167
- Dental
  - standards, 190
  - survey, 198
- Department of
  - Communications, 458
  - Defence, 39
    - central administration, 39
    - powers and functions of the Secretary, 39
  - Health, 161, 181, 190, 191
    - functions of, 181
    - Pathology Laboratory Service, 188
  - Housing and Construction, Engineering Division, 602
  - Resources and Energy, 345, 383
  - Industry and Commerce, 363
  - Primary Industry, 304-313
  - Science and Technology, 587-593
    - Antarctic Division, 601
    - role of, 587, 601
  - Veterans' Affairs, 169, 172, 174-175, 192, 193
    - functions of, 170
    - activities of, 174-175
- Dependants of veterans, medical treatment for, 173-175
- Development
  - Australian agricultural industries, 247
  - banks, 478
- Developments in the
  - mineral sands industry, 361
  - uranium industry, 361
- Diamond production, 361
- Disability pensions, 170-172
  - annual liability for, 171
  - classes of, 170-171
  - eligibility for, 170
  - miscellaneous, 171-172
  - number of, 172
    - and amount paid, 171-172
  - rates of, 170
- Disability pensions for incapacitated veterans, 171
- Disabled people, program of aids for, 185
- Disabled persons homes for, 166-167
  - sport and recreation, 627
- Disarmament and arms control, 63
- Disease control, 190-192
- Disposal of Crown Land, 256
- Disputes, industrial, 146-149
- Dissolution of marriage, 90-94
- Distribution and composition of earnings and hours, 138
- Distribution of Income, 177-179
- Divorce, 85, 92-94
  - children of the marriage, 94
  - crude rates of, 85
  - grounds for, 92
  - provisions for, 92
- Domestic
  - factor incomes, 533
  - production account, 535, 537
  - Tourism, National Monitor on, 628
- Domiciliary nursing care benefit, 184
- Drainage divisions, 316-317
- Dried fruits imports, 275
- Dried fruits levy, 552
- Dried grapes, 278
- Dried vine fruits
  - consumption, 278
  - exports, 278
- Dried fruits levy, 521
- Drivers' and riders' licences, 451
- Droughts, 22
- Drug
  - evaluation, 199
  - offences, 222, 223
  - number of charges, 222
- Drugs, 222-223
- Dunstan, His Excellency Lt-Gen. Sir Donald Beaumont, K.B.E., C.B., 28
- Dwellings, unoccupied, 404

- **Earnings**, 134
  - distribution and composition of,138-139
- Earnings, and hours, 136
- Economic
  - censuses, 378
  - Co-operation and Development, Organisation of, 323
  - management, legislation for, 471
  - relations, 63
  - and Social Commission for Asia and the Pacific (ESCAP), 59, 323
- Education
  - aboriginal, 239-240
  - administrative structure at the national level, 226-227
  - Commonwealth responsibilities, 226
  - compulsory, 228
  - Conference of the Directors-General, 227

Education—*continued*
  co-ordination agencies
    government, 227
    non-government, 227
  Department of, 226
  funding of schools, 229
  migrant and multicultural, 240
  new developments in, 227-228
  outlay
    by Commonwealth authorities, 242
    private sector, 241
    public sector, 241
  pre-school, 228
  primary and secondary, 228
  State responsibilities, 226
  technical and further, 232-234
  tertiary, 232
  in the Australian Capital Territory, Commonwealth Government responsibility for, 226
Educational
  institutions
  Research, Australian Council for, 227
  Scientific and Cultural Organization (UN), 323
EEC, trade with, 564
Effective exemption from tax, 509
Egg
  exports, 300
  products, 299
  pulp export, 300
Eggs
  consumption, 300
  production, 299
Elections, 33
Electoral redistribution, 34
Electric power, 394-402
  capacity and production in South Australia, 400
  future development in Queensland, 399
  Western Australia, 400
Electricity
  Authority of New South Wales, The, 396
  Commission of New South Wales, 396
  generation
    New South Wales, 396
    Queensland, 398
    Tasmania, 401
    Victoria, 397
    and transmission in New South Wales, 397
  in New South Wales, future development, 397
  supply
    Australian Capital Territory, 401
    Northern Territory, 402
Embassies, 70
Emergency service organisations, 53
Employed persons
  characteristics of, 122-126
  average hours worked, 145
  definition of, 121
  industry, 123
  occupation, 124
Employment, 121-127
  in agricultural establishments, 303
  benefits, 141
  creation, 157
  in Defence, 44
  in manufacturing establishments, 369, 373
  services, 157
Employment and training programs, 155
Employment status
  by birthplace and period of arrival in Australia, 120
  of civilian population, 119
Energy, 382-403
  Authority of New South Wales, 396
  policy, 382-383
  research, 383-385
  Survey, national, 402
Enterprise, 248, 249
Enterprises
  multi-establishment, 368
  public financial, 497
  statistics, 378
Environment
  Australian, 621
  impact assessment, 622
  Program of the United Nations, 324
  studies, 622
Equipment
  for the Defence Force, 40
  used in fisheries, 310
Establishment, 248, 249, 250
  agricultural, *see* Agricultural establishments manufacturing stocks, 371
  manufacturing, 367-372
  mining, 351
  retail, 379
Estate duty, 514
Estimated value of operations, 249
Ethnic affairs, 168-169
European Economic Community, 547
  trade with, 564
Evaporation, 22
Exchange control, 543
Excise, 571
  duties, 519
  revenue, 519
Expectation of life at selected ages, 90
Expenditure
  and income, National, 533
  on education, 240-242
    in the private sector, 241
    in the public sector, 241
  on general repatriation benefits, 175
  on gross domestic product, 537
Exploration of Australia, 3
Export
  awards, 544
  of bacon, ham and canned meat, 288
  Commodity Classification, Australian, 114, 553
  contracts for sugar, 270
  controls, 543
  Finance and Insurance Corporation, 545
  incentives, 544
  Price Index, 108, 114
  restrictions, 543
Export Market Development Grants Act 1974, 544
Exports
  of Australian produce, 551
  egg products, 300
  eggs, 300
  of flour, 263
  of live animals, 287-288
  of major commodities, 559
  of meat, 287
  of minerals and mineral products, 357
  of wheat, 263-264
  valuation of, 561
  value of major commodity groups, 557-559

Family
  allowances, 165
  Court of Australia, 213-214
    guidelines of, 214
  Income Supplements, 165

Family Law Act 1975, 90, 92, 213
  provisions for legal aid, 214
Federal Court of Australia, 212
  of Bankruptcy, 212
Federal courts, 211-214
Federal Police, Australian, 219
Federation, 6
Female weekly wage rates
  indexes of, 135
  for industry groups, 135
Ferries, 448
Fertilisers, 300
  imports of, 301
  production of, 301
Fertility, 85, 86-87
  of Australian marriages, 87
  rates, 86-87
Festivals, 611
Film, 612-614
  and sound Archive,616
  censorship, 613
  Commission, Australian, 612
  and Television School, 230, 613
Films, feature, 612
Finance
  companies, 482
    amount financed, 483
    assets and liabilities, 483
    balances outstanding, 483
    income and expenditure, 483
    housing, 491
    operations of, 482
Financial assistance
  funding for the arts, 609
    for education, 229
  primary and secondary education, 229
Financial Corporations Act 1974, 471
Financial corporations
  assets, 484
  operations and liabilities, 484
  statistics, 484
Financial institutions, 470
Financial statistics
  agricultural enterprises, 248-250
Fish, 307-308, 310
  processing of, 312
  production, 311
Fisheries Act 1952, 309
Fisheries
  administration, 309-310
    objectives of, 309
  equipment used in, 310
  products
    domestic marketing of, 312-313
    production of, 310-311
  research, 310
    aims of, 310
  statistics, collection of, 307
Fishing
  boats, 310
  operations, pearl culture, pearl and trochus-shell, 312
Fitness programs, 626
Floods, 22
Flour, exports of, 263
Fodder crops, 279
Fog, 21
Food aid and security, 68
Foodstuffs, apparent consumption of, 253-255
Foreign
  investment, 572-577
    inflow of, 573
Foreign—*continued*
  ownership and control in the manufacturing industry, 378
  trade
    commodities traded with major partners, 563-570
    direction, 561
    legislation affecting, 542
    non-merchandise, 554
    Publicity Committee, 545
    by State, 570
    Statistics, 554
    with
      ASEAN, 563
      Belgium-Luxembourg, 563
      Canada, 563
      China, 564
      EEC, 564
      France, 564
      Germany, Federal Republic of, 564
      Hong Kong, 565
      Indonesia, 565
      Iran, 565
      Italy, 566
      Japan, 566
      Korea, Republic of, 566
      Kuwait, 566
      Malaysia, 566
      Netherlands, 567
      New Zealand, 567
      Papua New Guinea, 567
      Saudi Arabia, 569
      Singapore, Republic of, 569
      United Kingdom, 569
      United States of America, 569
      USSR, 569
      various countries, 561
Forest
  administration, Commonwealth, 304
  research, 305-306
Forested areas, extent of, 304
Forestry, 304-307
  activities
    in the States, 304
    in the Territories, 304
  education, 306
Forests
  and Agricultural Residues, 393
  ownership of, 305
  State, 256
  types of, 304
France, trade with, 564
Freedom of Information Act, 216
Fringe benefits available to pensioners, 163, 164
Frost, 20
Fruit, 273-276
  apparent consumption of, 274
  canned, 276
  crops
    area planted, 273
    number of trees, 273
  exports, 275
  gross value of production, 275
  imports, 275
  industry
    marketing, 275-276
    regulation of, 275-276
  processed, 274
  production of, 274
    value of, 274
  products, 274-275
    trees, number, 273

Fruit—*continued*
  value of exports, 275
  value of production, 274
  varieties grown, 273
Full-time employees
  age groups, 125
  non-managerial, average earnings and hours paid for, 137
  weekly earnings, 136

Gardens
  botanical, 624
GATT, 64, 545-547
General
  Agreement on Trade and Tariffs (GATT), 64, 545-547
  aviation activity, 455
  fertility rates, 86-87
  government, 27
  insurance, premiums and claims, 488
Geobiological research, 347
Geography, physical, Australia, 9-10
Geology of Australia, 341
Geothermal energy, 393
Germany, Federal Republic of, trade with, 564
Gift duty, 517
Global radiation, 21
Government
  civilian employees, 125
  housing authorities, 412-415
  leaders, Commonwealth and State, 30
  munitions factories, 55
  railways, 442-447
    employees, wages and salaries, 447
    freight traffic, 445
    gross earnings, 446
    rolling stock, 444
    route-kilometres open, 442
    train-kilometres, 444
  schools, students by age and sex, 231
  securities, 529
  tram and bus services, 448
Governor-General, 27
  powers and functions, 27
Governors
  holders of office, 28
  powers and functions, 28
Grain
  cereal, *see* cereal grains
  coarse, 264
  Research Laboratory, Central, 261
  sorghum, 265
    area cropped, 265-266
    exports, 266
    production, 266
Grants Commission, special grants to the States, 499
Grants
  for aged or disabled persons homes, 166-167
  paid under Handicapped Persons Assistance Act, 167
Grapes
  climatic requirements, 276
Grapevines, 276-277
Greasy wool, 290
Gross
  domestic product, 533
    at factor cost, 533
  fixed capital expenditure, 539
  national expenditure, 533
  reproduction rate, 88

Gross—*continued*
  value of agricultural commodities produced, 251-252
  value of livestock slaughterings, 288
Groundwater
  supplies, 315
  usage, 316
  use of surface water, 316-317

Hail, 16
Ham and bacon, 288
Handicapped
  Children's Benefit, 167
  child's allowance, 165
  persons, training for, 167
Handicapped Persons Assistance Act 1974-76, 167
Hansenide hospitals, 193
Hansen's disease, 193
Harbour Boards and Trusts, 435
Hay, 279
Health
  advisory organisations, 189-190
  benefits, 181-182
  community program, 187
  Department of, 181, 190, 191
  Insurance Surveys, 197
  and Medical Research Council, National, 189
  Program Grants, 187
  service organisations, 188-189
  Surveys
    Australian Health, 197
    Dental, 198
    Handicapped Persons, 200
    Health Insurance, 197
    Hearing, 197
    Immunisation, 199
    Sight, 197
Heard Island and McDonald Islands, 8, 659
Hearing Survey, 197
Heat waves, 18
Heritage Commission, The Australian, 618, 619
High Commissions, 71
High Court of Australia, 211-212
Higher defence machinery, 40
Higher defence organisation, 39
Historic Memorials Committee, 610
Historic shipwrecks, 620
Home
  Deposit Assistance Scheme, 405
  First owners scheme, 406
  Loans Scheme, Northern Territory, 418
  Nursing, history of, 202-209
  Nursing Subsidy Scheme, 184
  purchase assistance, 408, 416
  Sales Scheme, Northern Territory, 419
Homeless Persons Assistance Act, 167
Homes
  for the aged, 166-167
  for aged and disabled persons, grants for, 166-167
  Defence Service, 410
  for disabled persons, 166-167
Honey
  exports, 299
  levy, 299, 522
Hong Kong, trade with, 565
Hops, 280
Hospital
  benefits, 181, 183
  costs, 182
    statistics, 193-194

Hospitals
  hansenide, 193
  private, 182
  psychiatric, 193
  repatriation, 193
House of Representatives, elections, 34
Household
  expenditure
    surveys, 115
  income, 533
  spending patterns, 103-104
Houses
  new, material of outer walls, 421
  number of, 421
Housing
  Agreement, 1981, 407
  Agreement (Servicemen), 408
  authorities, 412-415
  Commission of New South Wales, 413
  Commission of Victoria, 413
  Commission of Queensland, 413
  Commission Sales Scheme, Northern Territory, 419
  and Construction, Department of, Engineering Division, 602
  Dwellings, 404
  finance, 491
  loans
    Australian Capital Territory, 419
    insurance scheme, 412
  Loans Insurance Corporation, 412
  rental activities of government authorities, 415
  schemes
    Australian Capital Territory, 415
    Northern Territory, 415
Human quarantine, 190-191
Human Rights Commission, 215-216
Humidity, 20-21
Hydro-Electric Commission, Tasmania, 401
Hydro-electricity, 325
  in New South Wales, 397
Hydro-power, 394

Immigration, effect on population, 73-74
Immigrant welfare, 168-169
Immunisation campaigns, 192
Immunisation surveys, 199-200
Import
  clearances, 570
    dutiable, 570
  Commodity Classification, Australian, 553
  restrictions, 543
  price index, 108, 112-113
Imports
  of minerals and mineral products, 357
  valuation of, 561
  value of major commodity groups, 557
Income, 134
  mean annual, 140
  and outlay, National, 538
  distribution, 177-179
  Supplement, Family, 165
  tax assessment
    companies, 514
    individuals, 503
  tax
    companies, rates of, 514
    individuals, general rates, 1983-84, 510
    payable on specified incomes, 512
    rates for individuals, 510
  taxable, 504
Income—*continued*
  taxes
    collected, 513
    companies, 515
    individuals, 503
    total, 140
Index
  numbers of consumer (retail) prices in various countries, 108
Indexes
  of agricultural commodities produced, 252-253
  of average unit gross value of commodities produced and output, 252
  of award rates of pay, 135
  male weekly wage rates for industry groups, 135
  price, 103-114
  retail price, 107-108
Indian Ocean, 62
Indonesia
  defence co-operation with, 45
  trade with, 565
Industrial
  accidents, 152
  conciliation and arbitration, 134
  Design Council of Australia (IDCA), 365
  disputes, 146-149
    duration and causes of, 149
    methods of settlement, 149
    number of, 146
    working days lost, 147-149
Industries
  Assistance Commission, 362
Industry
  defence, 41
  Economics, Bureau of, 363
  petroleum, 362
  policy advice, 589
  training services, 156
  wheat development of, 259
  wine, 278
Inflow of foreign investment in enterprises, 573
Information Technology Council, 593
Instalment credit for retail sales, 490
Institute of Family Studies, 604
Institute of Sport, Australian, 626
Insurance, 487
  general, 487
  life, 485
Integrated Agricultural Register, 248
Internal
  migration, 82-84
  trade, 379
  travel, 628
International
  air service agreements, 454
  airline
    traffic, 455
  Civil Aviation Organisation, 454
  Energy Agency, 383
  Lead-Zinc Study Group, 349
  Monetary Fund, 577, 583
  movements, 94-98
  relations, 58-71
    Antarctica, 65
    importance to mineral industry, 349-350
    Law of the Sea, 65
    nuclear issues, 63
  research activities, 604
  reserves, 583
  scientific organisations, Australia's participation in, 604

International—*continued*
    telecommunications traffic, 466
    Tin Agreement, 349
    visitors survey, 630
    water organisations, 323-324
    Wheat Agreement, 263
    Year of Youth, 244-246
Interstate
    migration, 84
    shipping cargo, 441
Invalid pensions
    and associated payment, 161-162
        eligibility criteria, 161-162
    income test, 161
    rates of, 161
Invalid pensioners, by age, 162
Investment
    foreign, 572-577
    income receivable from foreign enterprises, 576
    outflow of Australian, 577
    portfolio, 572
Ionospheric Prediction Service, 591
Iran, trade with, 565
Iron ore industry, developments in, 360
Irrigation
    in the Australian Capital Territory, 340
    in New South Wales, 326-327
    in the Northern Territory, 339
    in Queensland, 330-332
    in South Australia, 332-334
    in Tasmania, 336-339
    in Victoria, 328-329
    in Western Australia, 334-336
    on agricultural establishments, 302
Isolated patients, assistance, 184
Italy, trade with, 566

Japan, trade with, 566
Jervis Bay, 6
Job vacancies, 131-132
Joint Coal Board, 344

Keeling Islands, *see* Cocos (Keeling) Islands
Korea, Republic of, trade with, 566
Kuwait, trade with, 566

Labour adjustment training arrangements, 156
Labour force, 116-121
    definition of, 116
    estimates of the, 116
    participation rates, 118
    survey, the, 116
Lamb, 285, 286-287, 288-289
Lambing, 283
Lambs and sheep, 282-283, 287, 288
Land
    tenure, 256
    utilisation in Australia, 256
Language usage, survey of, 98-100
Law
    enforcement in respect of drugs, 223
    Federal and State responsibilities, 210
    nature and composition, 210
    reform, 211
    of the Sea, 65
Leaders of the
    Government, Commonwealth and State, 30
    Opposition, Commonwealth and State, 31
Leavers from educational institutions, 120
Legal aid, 218
Legislative power, 27
Legislature
    Commonwealth, 27
    provisions relating to drugs, 222-223
    State, 27
Leprosy (Hansen's disease), 193
Letter patent, 217
Libraries, 617-618
    Australian Government, 617, 618
    Colleges of Advanced Education, 618
    State, 618
    Universities, 618
Library, Australian National, 592, 616
Licences, drivers' and riders', 451
Life
    be in it program, 625
    expectancy, 89-90
    expectation selected ages, 90
    insurance, 485-487
        offices
            liabilities and assets, 486
            revenue and expenditure, 486
            summary, 487
    tables, 90
Linseed, 267
Liquefied petroleum gas, 387, 390
Literature, 609
Live animals, exports of, 288-289
Live births, 85-86
    nuptiality, 86
    sex, 86
Livestock, 281-289
    Slaughter Levy, 522
    slaughtered for human consumption, 286
    slaughterings, gross value of, 288
Living-away-from-home allowances, 505
Loans, for purchasing or building homes, 416-419
Local authorities, 525-527
    borrowings, 531
    receipts and outlay, 526
    powers of, 525

McDonald Islands and Heard Island, 8, 659
Machinery, agricultural, 303
Maintenance, 214
    and custody, 213
Maize, 266
    area cropped, 266
    exports, 266
    production, 266
Malaysia
    defence co-operation with, 45
    trade with, 566
Management of water resources, 321-322
Manufacture, bounties on, 362
Manufacturing, 362-378
    Census, 366
    establishments
        employment in, 369
        number, 372
        stocks, 371
        turnover, 370
        value added, 372
        value of turnover, 370
    Industry
        price index of articles produced, 112
        statistics
            1901 to 1967-68, 366
            from 1968-69, 366-367
        wages and salaries, 370
    principal commodities produced, 373-377
    standardisation, 364

- Marine
  - pollution, 432
  - science, 601
- Marketing costs, 251
- Marriage, 90
  - Act, 1961, Australian, 90
  - age at, 91-92
  - children of, 94
  - counselling, 213
  - dissolution of, 94
  - marital status at, 91
- Marriages, 85, 90-92
  - crude rates of, 85
- Materials Handling Bureau, National 592
- *Matrimonial Causes Act 1959-66*, 92
- Matrimonial property, disputes, 214
- 'Meals-on-Wheels', 167
- Measurement, units and standards, 592
- Meat
  - Board, Australian, 289
  - exports, 287
  - and Livestock Corporation, Australian, 289
  - and meat products, consumption of, 288-289
  - production, 284-289
- Medical
  - benefits, 182
  - expenses, 507
- Medicare 181-182
  - grants to States 186, 187
- Mental health institutions, 193
- Merchandise trade, foreign, 552, 554
- Meteorological research, 591
- Meteorology, 591, 605
  - Bureau of, 26, 591
- Migrant
  - and multicultural education, 240
  - Education Program, Adult, 240
  - settlement, 168-169
  - welfare services, 168-169
- Migration
  - internal, 82-84
  - interstate, 84
  - to Australia, 96-98
- Milk
  - cattle, numbers of, 295
  - production, 297
  - utilisation, 297
  - whole, 297
- Mineral
  - development and research, 347-348
  - exploration
    - control of, 341-343
    - other than petroleum, 354
  - exports, control of, 343-344
    - industry
      - Commonwealth Government assistance to, 344-345
      - income taxation concessions, 344-345
      - recent developments in, 358-361
      - research, 347-348
        - by private enterprise, 348
        - by universities, 348
      - State government assistance to, 345-347
  - prices, 357-358
  - processing and treatment, 356
  - production, 351-354
    - value of, 353
  - resources, 341
  - Resources
    - Bureau of, 344, 345, 348
    - Geology and Geophysics, Bureau of, 348
- **Mineral—*continued***
  - rights, 341, 342
  - royalties, 343
  - sands industry, developments in, 361
- Minerals
  - administration of, 341-344
  - and Energy Council, 384
  - and mineral products
    - exports of, 357
    - imports of, 357
  - of economic significance, 341
  - quantity produced, 351
- Mining
  - establishments, 350-351
  - industry, foreign participation, 354
- Ministries, Commonwealth Government, 1901 to 1984, 29
- Ministers of the second Hawke Ministry, 30-31
- Ministry of Housing, Victoria, 413
- Miscellaneous crops, 278-280
- Molluscs, edible, 308
  - proeessing of, 312
  - production, 311
- Money, 470
  - market, 482
    - corporations, 482
    - dealers, short-term, 482
  - volume of, 470
- Mortality, 88-89
  - general, 88
- Mortgage and rent relief scheme, 411
- Motor vehicle
  - census, 450
  - registration, 451
  - usage, survey of, 449
- Motor vehicles on register, 450
- Movements, international, 94-98
- Multi-establishment enterprises, 368
- Multilateral
  - aid, 68
  - trade, 545
- Municipal tram and bus services, 448
- Munitions factories, government, 55
- Murray, His Excellency Rear Admiral Sir Brian Stewart, K.C.M.G., A.O., K.St.J., 28
- Murrumbidgee Irrigation Area, 326
- Museums, 616
- Mushrooms, 280
  - canned, bottled or dried
    - imports, 280
    - production, 280
- Music, 609, 611
- Mutton, 285, 286-287, 289

National

- Aboriginal
  - Conference, 168
  - Consultative Committee, 168
- accounts
  - framework, 534
  - sectors, 534
- Accreditation Authority for Translators and interpreters (NAATI), 169
- Acoustic Laboratories, The, 189
- Advisory bodies, science and technology, 589
- Aeronautics and Space Administration (U.S.), 606
- Anthem, 38
- Association
  - of Australian State Road Authorities, 453
  - of Testing Authorities (NATA), 365
- Biological Standards Laboratory, 190

- National—*continued*
  - Broadcasting Service
    - program facilities, 467
    - technical facilities, 467
  - capital account, 534, 538
  - Capital Development Commission, 651
  - Coaching Accreditation Scheme, 625
  - collections, 614
  - colours, 38
  - disposable income, 533
  - Energy
    - Council, 383
  - Estate, grants, 618
  - expenditure, gross, 533
  - Gallery, 614
  - Health and Medical Research Council, 189
  - health
    - benefits, 181-182
    - services organisations, 188-189
  - Heart Foundation, government grants to, 188
  - income and expenditure, 533
      - accounts, 535
      - main aggregates at current prices, 540
      - reliability of estimates, 536
      - revision of estimates, 536
      - tables, 536-540
  - Institute of dramatic art, 614
  - Library of Australia, 616
  - Materials Handling Bureau, 592
  - Parks, 623
  - Prison Census, 223
  - Standards Commission, 365, 593
  - Television Service, 468
  - Therapeutic Goods Committee, 190
  - Trusts, 620
  - Water Resources Assessment Program, 339
- *National Debt Sinking Fund Act 1923*, 529
- Natural
  - Disasters Organisation, 53
  - gas, 382, 388
  - increase of population, 73-74
    - crude rates of, 85
- Nature reserves, 624
- *Navigation Act 1912*, provisions of, 429
- Net reproduction rate, 88
- Netherlands, trade with, 567
- New
  - capital raisings, 492-494
  - houses, 420
  - money, 493
  - motor vehicles, registration of, 451
- New South Wales
  - dams and reservoirs, 319
  - electricity generation and transmission, 396
  - Housing Commission, 413
  - hydro-electricity, 397
  - irrigation, 326-327
  - water conservation, 326-327
- New Zealand
  - trade with, 567
  - reciprocal social service agreements, 166
- Nickel industry, developments in, 361
- Non-container cargo, 438
- Non-government
  - organisations, aid, 68
  - railways, 447
  - schools, students, age and sex of, 231
  - school, students, year of education and sex of, 232
  - teachers colleges, 240
- Non-managerial employees, 137
- Non-merchandise trade, 554
- Non-private dwellings, 404
- Norfolk Island, 7, 657-659
  - administration, 657
  - economic activity, 657
  - education, 658
  - finance, 658
  - judiciary, 658
  - trade, transport and communication, 658
- Northern Territory
  - Aboriginals, 639-641
  - administration, 637
  - air services, 646
  - area, 637
  - climate, flora and fauna, 638
  - dams and reservoirs, 320
  - education, 226, 647-649
  - electricity supply, 402
  - finance, 650
  - fishing, 644
  - forestry, 644
  - health, 649
  - housing schemes, 415
  - irrigation, 339
  - land tenure, 641
  - legislation, 637
  - manufacturing establishments, 645
  - mining, 643
  - National Parks and Reserves, 623, 645
  - natural gas, 644
  - pastoral and agricultural industries, 642
  - petroleum, 644
  - physical geography, 638
  - population, 639
  - posts, telegraph, telephone, radio and television, 646
  - production, 641-645
  - railways, 645
  - roads, 645
  - schools, 647
  - secondary industries, 644
  - self government, 637
  - shipping, 646
  - soil conservation, 639
  - technical and further education, 649
  - tourism, 645
  - transfer to Commonwealth, 6
  - vocational training, 648
  - water, 639
    - conservation, 339
- Notifiable diseases
  - cases notified, 191-192
  - methods of prevention and control, 191
- Nuclear issues, 63
- Number of
  - dwellings, 404
  - manufacturing establishments, 372, 373
  - new houses, 420
- Numbers, Commonwealth Government ministers, 31
- Nuptial births, 86-87
  - confinements, 87
- Nursing
  - care, domiciliary benefits, 184
  - history of home, 202-209
  - home benefits, 183
  - homes, 183-184
- Nutrients, 255

- **Oats**, 264-265
  - area cropped, 264-265
  - exports, 264-265
  - production, 264-265

Ocean thermal energy, 392
Office of Youth Affairs, 242-243
Oil
    Australian crude, 360-361
    reserves, 382
    shale, 390
Oilseed crops, 267-269
    area, 268
    gross value, 268
    production, 268
    trends in production, 267-269
Ombudsman, 215
Opera, 611
Opposition leaders, Commonwealth and State governments, 31
Optical astronomy, 605
Orchestras, 667
Ord River Irrigation Project, 344
Ores and concentrates, exported, 358
Other
    dwellings, new, 421
    schooling arrangement, correspondence tuition, 230
Outflow of Australian investment, 576
Outlay
    by Commonwealth authorities, main components, 498
    of Budget, 496
    on education
        Commonwealth authorities, 242
        public authorities, 241-242
        State authorities, 241
    on Parliamentary governments, 37
    of State authorities, main components, 524
Overtime, 145-146
Overseas
    arrivals and departures, 94-98, 628-630
    Broadcasting Service, 468
    cargo loaded and discharged, 433, 436
    ship movements, 435
    Projects Corporation, Australian, 545
    shipping
        country of registration of vessel, 436
    Telecommunications Commission (Australia), 464-466, 497
        charges, 465
        establishments, 464
        international consultation, 464
        satellites, 465
        submarine cables of, 465
    trade, *see* Foreign Trade
    transactions account, 536, 539
    travel, 628-630
    visitors, survey of international, 630

Papua New Guinea
    aid, 66
    defence co-operation with, 45
    trade with, 567
Paramedical services
    Commonwealth Government
        grants and subsidies for, 187
Parliamentary government, 27
    outlay on, 37
Parliaments of the States, membership by party affiliation, 36
Partnerships and trusts, 514
Part-time workers
    by age, 125
Passports, 71
Pasture improvement, 301-302
Patent Office Library, 617
Patent, Trade Marks and Design Office, 591
Payroll tax, 522
Peanuts, 268
Pearl shell, 308, 311-312
Pearls, 310, 312
Pensioners, 161-163
    fringe benefits available to, 163-164
    widow, by age, 163
Pensions
    age, *see* age pensions
    disability and dependants', 170-173
    invalid, 161-162
    service, 172-173
    widows', 161-163
Perinatal
    deaths, 195-196
Permanent building societies
    income and expenditure, 479
    liabilities and assets, 479
    operations of, 478
Permanent Defence Force
    composition of, 45
    personnel strengths of, 44
Permanent settlement in Australia, restrictions on, 97
Personal benefits payments, 186
Personal care subsidies paid under Aged and Disabled Persons Homes Act, 166-167
Persons
    not in the labour force, 132-133
    retired from full-time work, 152-154
Petroleum, 386-390
    exploration, 342-343
    industry, developments in, 342-343, 360-361
    production, 387
    resources, 387
Pharmaceutical benefits, 185
Phosphate
    fertilisers, 345
Phosphate Fertilisers Subsidy Act 1963, 345
Physical geography, Australia, 9, 10
Pigmeat, 285, 286, 287
Pigs, 284
Plant quarantine, 191
Plantations, 305
    area of, 305
    ownership of, 305
Plimsoll, His Excellency Sir James, A.C., C.B.E., 28
Police
    Federal, Australian, 219-220
    primary duties of, 219
Pollution, prevention of, 432
Population, 72-82
    Aboriginal, 82
    age, 78
        distribution, 78
        groups, 78, 80
    Census,
        history of the, 72
        topics covered in the, 72
    components of growth, 74
    estimates, 73
    ethnic composition of, 81-82
    growth, effect of migration on, 96
    location of, 76-77
    masculinity of, 81
    natural increase, 73-74
    projections of, 74-76
    size and growth of, 73
    of States, 77
    of Territories, 77
    Survey, The, 116

Pork, 287
Postal Commission, Australia, *see* Australian Postal Commission
Postal and Telecommunications Department, 458
Potato marketing, 271
Potatoes, 271
  Australian production of, 272
Poultry, 284
  industry development of, 287
  slaughtered for human consumption, 286
Pre-school education, 228
Prevention of pollution by oil, of Australian coast, waters and reefs, 429
Price
  collection for Consumer Price Index, 104
  Index
    Consumer, 103-106
    Export, 108, 114
    Import, 108, 112-113
    index of materials used in building other than house building, 109-110
    of materials used in house building, 108-109
    of materials used in manufacturing industry, 108, 111
  indexes, 103-114
    of articles produced by manufacturing industry; 112
    retail, 107-108
    wholesale, 108-114
Prices
  retail, 103-108
  Surveillance Authority, 115
Pricing of Australian crude oil, 389
Pricing of liquefied petroleum gas, 390
Primary
  Industry Bank of Australia, The, 478
  Industry, Department of, 304-313
  production taxes and charges, 519
  primary and secondary education, 228-230
Principal crops and pastures fertilised, 301-302
Private
  dwellings, 404
  finance
    economic management of, 471
    regulation of, 471
  health insurance, 182
Privy Council, 214
Processed fruit, 274
  and products, production of, 274
Proclaimed or declared roads, 453
Production
  of bacon, ham and canned meat, 288
  principal commodities, 373-377
  value added, 372
Products of mineral origin, production of, 351
Project SCORE, 593
Psychiatric hospitals, 193
Public authorities
  receipts and outlay, 528
  enterprises, 497
  health organisations, Commonwealth Government grants to, 187-188
  sector borrowing, 529
Public finance, 495-532

Qantas, 454, 497
Quantity of principal minerals produced, 351
Quarantine, 190-191
  animal, 191
  human, 190-191
  plant, 191
Queen Elizabeth, the Second, 27
Queensland
  Coal Board, 346
  dams and reservoirs, 319
  electricity
    generation, 399
  Housing Commission, The, 413
  irrigation in, 330-332
  water conservation in, 330
Quotas, tariff, 543

Radiocommunication stations, 466
Railway
  development, 442
  gauges, 442
Railways, 442-448
Rainday frequency, 14
Rainfall, 11-16
Ramsay, His Excellency Commodore Sir James Maxwell, K.C.M.G., K.C.V.O., C.B.E., D.S.C., 28
Rapeseed, 267
Rates, local government, 527
Rates of
  family allowance, 165
  income tax, individuals, 510
  pay indexes, 134-135
  sickness benefits, 164
  unemployment benefits, 164
Rebates, taxation, 507
Receipts
  by Commonwealth authorities, main components of, 498
  of State authorities, main components, 524
Recent developments in the mineral industry, 358-361
Recreation, 625-627
Red Cross Blood Transfusion Service, Commonwealth Government grants to, 187-188
Redistribution, electoral, 34
Referendums, 35
Refugee arrivals, 101
Refugees, 101
Refugees and relief, 69
Registered building societies, 478-480
Relations with
  Africa, 62
  America, 61
  Asia, 59
  Commonwealth, the, 59
  Europe, 61
  Middle East, the, 62
  South East Asia, 59
  South Pacific, 60
  United Nations, the, 58
Relative humidity, 20
Rental Assistance
  Aboriginal, 409
  pensioners, 409
Rental Housing Assistance, 408
Repatriation
  benefits, 170, 174-176
    expenditure on, 175
  Commission, 169
  General Hospitals, 173
    treatment of community patients, 173
  hospitals, 173
    and institutions, eligibility for treatment in, 174
  institutions, 174
  total expenditure on, 170
Reproduction rate
  gross, 88
  net, 88

Research
    activities, international, 604
    agricultural, 593
    by business enterprises, 594
    by government, 596, 600
    by private non-profit sector, 599
    and development, 593-607
        expenditure on, 594
        financial support for, 588
        manpower, 596
    forest, 304-306
    grain, 261
    Humanities, 604
    in universities and colleges, 597, 602
    meteorology, 605
    mineral industry, 347-348
    organisations, associated with education institutions, 603
    scientific, 592, 600
    social sciences, 597, 599, 604
    space, 606
    studentships and fellowships, 605
    water resources, 322-323
Reserve
    Bank of Australia, 472, 497
        central banking business, 473
        functions of, 472
        liabilities and assets, 473
        note issue department, 473
        rural credits, department, 473
        short-term money market, 481
Reserves, international, 583
Reservoirs and dams, 319-320
Resources and Energy, Department of, 348, 383
Retail
    census, 379
    establishments, 379
    price indexes
        1901 to 1982, 107
        previous, 107
    prices, 103-108
    sales
        at constant prices, 380
        value of, 380
    surveys, 379
Revenue from taxation, 495, 516
Rice, 266
    area cropped, 266
    exports, 266
    production, 266
Ried, His Excellency Professor Gordon Stanley, 28
River Murray Commission, 324
Rivers and lakes, 10
Rivers and Water Supply Commission, Tasmania, 337
Road
    Research Board, Australian, 454
    traffic accidents, 452
Roads
    proclaimed or declared, 453
    used for general traffic, 452
Rowland, His Excellency Air Marshal Sir James Anthony, K.B.E., D.F.C., A.F.C., 28
Royal
    Australian Air Force, 50-53
        aircraft of the, 51
        equipment, 52
        training, 51
    Australian Navy, 47-49
        Fleet Air Arm, 48
        equipment, 48
        ships, construction and repair, 49
        training and entry, 48
Royal—*continued*
    Commissions, 217
    Flying Doctor Service, Commonwealth Government grants to, 187

Safflower, 267
Salaries
    Commonwealth Government ministers, 31
    employees of manufacturing establishments, 370
Salary and wage earners, 125
Sales
    retail, 380
Salvage of wrecks, 429
Satellite remote sensing, 592
Saudi Arabia, trade with, 569
Savings banks, 477, 492
    branches and agencies, 477
    liabilities and assets, 477
Scheme of Parliamentary government, 27
School
    dental services, 241
    medical services, 241
    organisation and operation, 229
    Air, of the, 230
    Commission, 226, 228
    compulsory education, 228
    for the handicapped, 230
    funding of, 229
    government, age and sex of students, 231
    non-government, 231
    primary, 229
    secondary, 230
    students, category of, 231
    students and teachers, category of, 231
Science, 587-607
    Australian Academy of, 589
    in Australia, history of, 593
    and technology, bilateral arrangements, 605
    and Technology, Department of, 587-593
Scientific
    and Industrial Research Organization, Commonwealth, *see also* under Commonwealth
    and technological information services, 592
    research, 600
        defence, 602
Secondary
    and Primary Education, 228-229
Securities, Commonwealth Government, 529
Seismology, 607
Senate, 33
    election, 34
    Representation of the N.T. and A.C.T. in, 34
Senate (Representation of Territories) Act 1973, 33
Service
    pensions, 172-173
        amount paid, 172, 173
        class of, 172-173
        number in force, 173
Services Canteen Trust Fund, The, 176
Settler arrivals
    age of, 97
    marital status of, 98
    number of, 97
Settlers arriving country of last residence, 96
Share subscription, 492
Sheep, 282-283
    and lambs, 283
    and wool industry, 282-283
    numbers, 283, 291

Sheltered
  employment allowance and associated payments, 162
  workshops, 162, 167
Ship passengers, 429
Shipbuilding
  assistance, 430
  subsidy, 430
Shipping
  cargo discharged and loaded, 436-439
  casualties, 460
  Commission, 430
  control of, 428
  interstate, 441
  Registration Act, 430
  statistics, collection and presentation, 432
Ships
  of the Royal Australian Navy, 47
  importation of, 431
Shipwrecks, historic, 620
Short-term money market, 481
Sickness benefits, 164
  eligibility criteria, 164
  rates of, 164
Sight survey, 197
Silage, farmstocks of, 279
Silver, lead and zinc, industry developments in, 360
Singapore
  defence co-operation with, 45
  trade with, 569
Single establishment manufacturing enterprises, 372
Skills
  training, 155
  in demand, 155
Slaughterings, 284-288
Snow, 16
Snowy Mountains Hydro-electric
  Authority, 497
  Scheme, 319, 325, 394
    map of, 395
Snowy Mountains Hydro-Electric Power Act 1949, 394
Social
  science research, 604
  security services, Commonwealth Government expenditure on, 161, 162, 163, 164, 165
Softwood Forestry Development, 305
Soil
  conservation, 590
  resources, 590
Solar energy, 392
Soldiers' Children Education Scheme, 175-176
South Australia
  Electricity Trust of, 400
  Housing Trust, The, 414
  irrigation, 332-334
  water conservation, 332-334
South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA), 60
Sovereign, 27
Soybeans, 267
Space
  research, 606
  tracking stations, 606
Special
  apprentice training, 155
  benefit, 161, 164
  Broadcasting Service, 467
  courts and tribunals, 214
  schools for the handicapped, 230
  training, 157
  Youth Employment Training Program (SYETP), 156
Spending patterns, household, 103-104
Sport, Australian Institute of, 626
Sports development, 625
Sports facilities, international standard, 626
Standard International Trade Classification, 111
Standard time, 10
Standards Association of Australia, The, 364
Standardisation of manufacturing, 364
Standing Committee of the Health Ministers Conference, 190
State authorities, 523-525
  borrowings, 531
  finance, coverage, 523
  outlay on education, 302
  receipts and outlay, 524
State
  Consolidated Revenue Funds, 523
  Electricity Commission
    of Queensland, 399
    of Victoria, 397
  Energy Commission of Western Australia, 400
  Fisheries Authorities, 309
  forestry authorities, 305-306
  forests, 256
  governors, 28
  housing authorities, 412-415
  Housing Commission of Western Australia, 414
  legislation, for financial institution regulation, 472
  parliaments, membership by party affiliation, 36
  softwood forestry operations, 306
States
  capital assistance grants to, 500
  population of, 77
Stevedoring industry, 431
Steven, His Excellency the Right Honourable Sir Ninian Martin, A.K., G.C.M.G., G.C.V.O., K.B.E., 28
Stock exchange, 492
Stocks of manufacturing establishments, 371
Students
  at universities, 238-239
Subscriber Trunk Dialling facilities, 463
Subsidy, shipbuilding, 430
Sugar, 269-270
  apparent consumption, 270
  area harvested, 270
  cane,
    area harvested, 269
    production, 270
    yield, 270
  export contracts, 270
  exports, 270
  markets, 270
  production, 270
Sunflower, 267
Sunshine, 21
Superannuation
  policies, 487
  schemes, 488
Supply of nutrients available for consumption, 255
Supporting parents
  age, 163
  by type of beneficiary, 163
Supporting parent's benefit, 161, 163
Surface water
  measurement, Northern Territory, 339
  supplies, 339
  use of ground water, 316
  yield of, 317-318
Surveys
  construction industry, 424-426
  economic, 378
  household expenditure, 115

Surveys—*continued*
    of earnings and hours, 136-137
    of motor vehicle usage, 449
    of National Travel, 628
    retail, 379

TAFE colleges, 232-234
Tariffs
    anti-dumping duties of, 542, 543
    concessional rates, 543
    general rates of, 542
    quotas, 543
    special rates, 542
Tasmania
    dams and reservoirs, 320
    Hydro-Electric Commission, 401
    irrigation in, 337-338
    output and capacity of hydro-electric system, 401
    Rivers and Water Supply Commission, 337
    water conservation in, 336-338
Tasmanian
    Freight Equalisation Scheme, 431
    Housing department, 415
Tax
    effective exemption from, 509
    payroll, 522
    rates, 510, 514
    rebates, concessional, 506
    wool, 521
Taxable income, 503
Taxation
    Commonwealth Government, 501-516
    deductions, 504
    rebates, 506
    revenue, 513, 516
Taxes on income, 502-516
    companies, 514-516
    individuals, 503-513
Teacher education, 240
    course content, 240
Teachers
    colleges, non-government, 240
Technical education, Commonwealth Government grants to States for, 232
Technical and Further Education, 232-234
    colleges, 232-233
Technology, 587-607
    advisory bodies, 589
    development, 588
    Information Council, 593
Telecom Australia, Research Laboratories, 602
Telecommunications Commission, Australian *see* Australian Telecommunications Commission
Telegrams, 464
Telephone
    calls
        local, 463
        trunk line, 463
    instruments in service, 463
    service, 463
Television, 468
    childrens, foundation, 612
    and Film School, 229
    services, 468
    stations, 469
        translator, 469
Telex services, 464
Temperature, 16-20
Terra Australis, 1
Territories, population of, 77
    of Australia, 637-663
Tertiary Education, 232
Tertiary Education Commission, Commonwealth, 226
Theatre, 609
Therapeutic Goods Advisory Committee, 190
Thorium, 392
Thunderstorms, 16
Tidal energy, 393
Timber, 306-307
    products, 306-307
    produced, 306
Tobacco, 279-280
    area cropped, 280
    overseas trade, 280
    production, 280
Tourism, 631-636
Toursim in Australia, 633-636
Tourist
    accommodation, 631
    Commission, Australian, 631
Trade
    agreements, 547-550
    balance of, 554
    descriptions, 544
    displays, fairs, exhibitions, 544
    Missions, 544, 550
    publications and advertising, 544
    policy, 545
    promotion and incentives, 544
    recognition, 158
    relations, 545-547
    representation in Australia, 550
    representation overseas
        marketing officers, 550
        trade correspondents, 550
    retail, 379
    services, 550
    statistics, collection of, 550-554
    training, 155
    Union Training Authority, 158
    unions, 150
    Unions, Australian Council of, 150
    wholesale, 379
Trade Practices Act 1974, 432
Trading banks, 474-476, 492
    advances and deposits, 475
    branches and agencies, 476
    debits to customers' accounts, 476
    interest rates, 476
    liabilities and assets, 474
Tram and bus services, government and municipal, 448
Trans-Australia Airlines, 497
Transport, 427-458
    Air, *see* Air Transport
    Department of Aviation, 454
    Economics, Bureau of, 428
    Industries Advisory Council, 427
    organisations, 427
    science, 607
Travel, internal Australian, 628
Travel overseas, 628
Treaties, 65
Trochus shell, 308, 310-312
Tropical cyclones, 11
Trunk route air services, 456
Trusts, 544
    Cash management, 485
Types of crops grown, 257-258

Ultrasonic Institute, The, 189
Undistributed profits of subsidiaries, 573

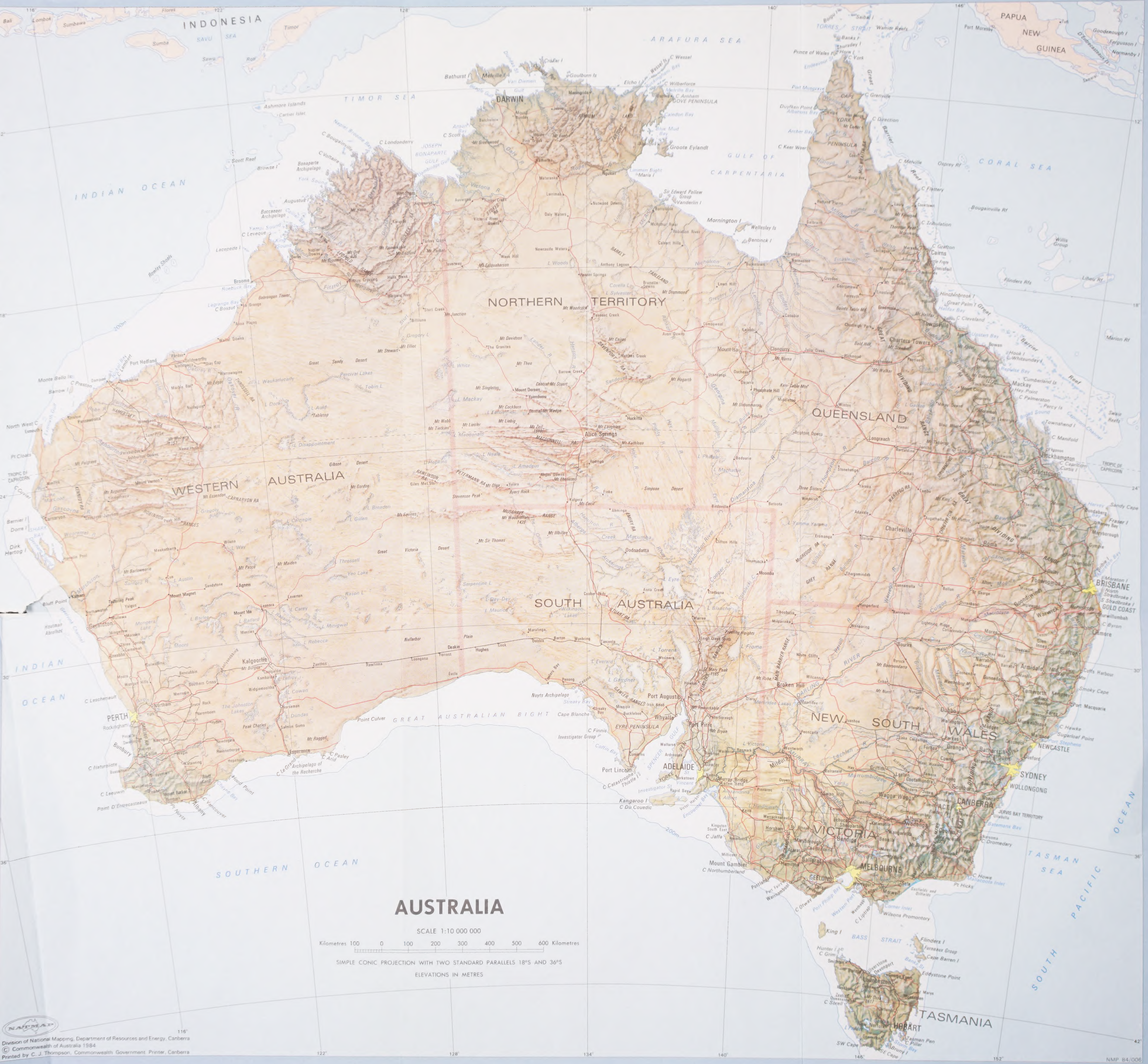
Unemployed persons
        characteristics of, 128-130
        definition of, 128
        duration of unemployment, 130
        industry, 129
        occupation, 129
Unemployment, 128
    benefits, 164
        eligibility criteria, 164
    rates of, 164
    rates graph, 130
United Kingdom
    trade with, 569
    reciprocal social service agreements, 166
United Nations, 58
    Economic and Social Commission for Asia and the Pacific (ESCAP), 58, 323
    Educational, Scientific and Cultural Organisation, 323
    Environment Program, 324
Universities, 237-239
    and colleges, research in, 602
    Commonwealth Government grants for, 242
    number of enrolled students, 238
    students completing degree courses, 239
    types of courses, 237
University and college libraries, 618
Unoccupied dwellings, 405
Unsecured notes, 493
Uranium, 390-392
U.S.A., trade with, 569
U.S.S.R., trade with, 569
Utilisation
    of land, 256

Vacancies, job, 131
Value added, 372
Value of
    agricultural commodities, 252-253
    buildings, 422
    fruit production, 275
    imports, 552, 557-570
    minerals produced, 353
    production, 372
    retail sales, 380
    turnover in manufacturing establishments, 370
    viticulture, 276
Vapour pressure, 20
Veal, 285, 286, 287, 288, 289
Vegetables, 271-273
    apparent consumption of, 271
    for human consumption, 271-272
        area cropped, 272
        production of, 272
        value of exports, 272
        value of production, 272
    processed, Australian production of, 272
Vehicle, total annual kilometres, 450
Vessels, Australian registered, 434
Veterans' affairs, 169-176
Veterans' Affairs, Department of, 169, 172, 174, 190, 193
Veterans
    dependants of, 173-175
    medical treatment for, 173-175
Victoria
    dams and reservoirs, 319
    electricity
        generation, 398
        transmission and distribution, 398
    Irrigation in, 328-329
Victoria—*continued*
    Ministry of Housing, 413
    water conservation in, 328-329
Victorian State Rivers and Water Supply Commission, 328
Visual Arts Board, 610
Vital statistics, 84-94
    crude rates, 85
Viticulture
    area sown, 276-277
    production, 276-277
    value of, 276
Volume of money, 470

Wage
    rates, earnings and income, 134-136
    and salary earners, 125, 135
Wages
    and salaries of employees of manufacturing establishments, 370
War Memorial, 616
Water conservation in
    Australian Capital Territory, 325, 340
    New South Wales, 325-327
    Northern Territory, 325, 339
    Queensland, 325, 330-332
    South Australia, 325, 332-334
    Tasmania, 325, 336-338
    Victoria, 325, 328-329
    Western Australia, 325, 334-336
Water management, 321-322
    attitudes to, 321
    policy and goals, 321
Water quality, 317-318
    conditions affecting, 317
Water Resources
    Commission, New South Wales, 326
    Council, Australian, 322, 644
Water resources
    determinants of, 322
    geographic background, 314
    management of, 321-322
    research, 322-323
Water, surface, 315
Weekly
    earnings
        all employees, 138
        average, 136
    wage rates, 135
        female, 135
        indexes of, 135
        industry groups, 135
Welfare
    child, 167, 214
    immigrants, 168-169
    organisations, Commonwealth Government assistance to, 166-169
    services
        to the handicapped, 165, 167
        to migrants, 168-169
Western Australia
    dams and reservoirs, 320
    electric power, 400
    irrigation in, 334-335
    State Housing Commission of, 414, 417
    water conservation in, 334-336
Whales, 308
Wheat, 259-264
    area cropped, 262
    Board, Australian, 259-261
    exports, 263-264

Wheat—*continued*
  grown for grain
    area cropped, 262
    disposal of, 262
    production, 262
  industry, development of, 259
  pools, 262
  production, 262
  receivals by the Australian Wheat Board, 262
  standards, 261
  varieties, 261
  world, 264
Whole milk
  apparent consumption, 298
  gross value, 297
  production, 297
  utilisation, 297
Wholesale
  price indexes, 108
    of articles produced by manufacturing industry, 112
    collection of prices, 108
    of materials used, 108-111
  trade, 379
Widow pensioners
  age, 163
Widows' pensions, 162-163
Wind
  energy, 392
  highest speeds, 22
  roses, 23-24
Wine, 278
  consumption, 278
  exports, 278
  industry, 278
Wine—*continued*
  production, 278
Wood, 307
Woodchips, 307
Wool, 290-295
  consumption, 294
  exports, 294-295
  greasy, 290
  industry, 282-283, 290-295
  marketing, 290-292
  prices, 293
  production, 290
  promotion, 293
  receivals, 292
    taxable, 292
  research, 293
  tax, 292
Work and work patterns, hours of, 144
World
  Health Organisation, 188, 324
  Heritage list, 619
  Meterological Organization, 324
  wheat, 264
    area cropped, 262
    production, 262
Wrecks and salvage, 429

Yield of surface water, 315
Youth
  fitness, 626
  office of, 242-246
  programs, 242
  support, 157
  training, 156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Esperance
Broome
Port Hedland
Carnarvon
Mount Gambier
Wagga Wagga
Launceston
Devonport
Tropic of Capricorn
JERVIS BAY TERRITORY
116°
122°
128°
134°
140°
146°
152°
12°
18°
24°
30°
36°
42°

AUSTRALIA

SCALE 1:10 000 000

Kilometres 100 0 100 200 300 400 500 600 Kilometres

SIMPLE CONIC PROJECTION WITH TWO STANDARD PARALLELS 18°S AND 36°S

ELEVATIONS IN METRES

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